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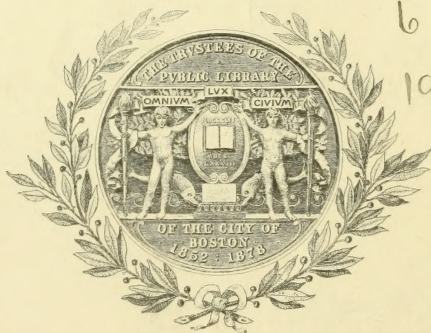
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THE INDUSTRIAL ARTS INDEX

SIXTH ANNUAL CUMULATION

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING
AND TRADE PERIODICALS FOR 1918

EDITED BY

CHARLOTTE G. NOYES AND
LOUISE D. TEICH

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THE H. W. WILSON COMPANY
NEW YORK
1918

THE
INDUSTRIAL ARTS INDEX
ANNUAL CATALOGUE
SUBJECT INDEX TO A SELECTED LIST OF PUBLICATIONS
AND TRADE PERIODICALS FOR 1918

This annual volume is printed on thin paper in order to comply
with the recommendation of the War Industries Board.

THE H. W. WILSON COMPANY.

EDITED BY
CHARLOTTE C. MOYER AND
LOUISE S. TITCH

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Industrial Arts Index

Vol. VI

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Full information in regard to subscription price will be supplied on request.

A vote of representative subscribers to the Industrial Arts Index was decidedly against a cumulated volume covering the five-year period 1914-1918. There will be therefore no cumulation of the annual volumes preceding 1918. It is probable, however, that the 1918 and 1919 indexes will be published as a two-year cumulation. It is planned also to increase somewhat the number of magazines indexed. In choosing additional periodicals we should like an expression of opinion from our subscribers. The Color Trade Journal, Flying, and Aviation have already been selected and will be indexed from January 1919.

It is a most regrettable necessity to announce the resignation of Miss Charlotte Noyes as editor of the Industrial Arts Index. Besides editing the Index Miss Noyes contributed to our editorial assets so much intelligence, common sense, and amiability that she is sorely missed. She has accepted a position with the Du Pont de Nemours Company at Wilmington, Delaware. It is on the other hand a pleasure to acknowledge the continued and admirable services of Miss Emily Anderson and Miss May Carpenter, who have been on the staff of the Industrial Arts Index from its beginning.

With the November issue The Sibley Journal suspended publication. It is to be hoped that with the coming of peace this publication may be continued.

A recent publication of The H. W. Wilson Company is one that should be in every library, public, private, or special. This volume is a Handbook on the League of Nations, compiled by Edith M. Phelps, general editor of the Debaters' Handbook Series.

"Electric Motors and Control Systems" by A. T. Dover is a new book of interest to electric railroad men, published by Isaac Pitman & Sons. It is an amplification of a portion of the author's work on "Electric Traction."

Readers' Guide Cumulation

There are several reasons for publishing a four-year cumulation of the Readers' Guide in 1919, rather than a five-year cumulation in 1920. In the first place, the end of 1918 coincides with the end of the war and there would seem to be a decided advantage in having nearly all the references to the contemporary periodical history of the war in one volume. A careful study of the relative efficiency of different periods of cumulation indicates the superiority of the three-yearly and four-yearly cumulations over the five-yearly ones for a term of less than twenty years. Since a greater part of the references to periodical literature become of comparatively little value in twenty years and are most used during the years immediately following publication, it seems evident that it would have been more efficient to adopt a policy of more frequent cumulation from the beginning. The fact that a smaller cumulation is less expensive to publish than a larger one is another argument in favor of the shorter term. A four-yearly cumulation is four-fifths the size of a five-yearly one, but the cost of production of the former is reduced more than the twenty per-cent one would expect.

NOTES AND ANNOUNCEMENTS

From the point of view of the publishers, there would be an advantage in issuing a four-yearly Guide in 1919 because of the fact that we have no other large publication in preparation at the present time and because we are fortunately situated as regards a staff for doing the work.

Mining Engineers' Handbook

The newest member of the family of Engineering handbooks has recently made its appearance from the press of John Wiley & Sons. The mining engineer and those concerned with providing machinery and equipment for mines, for whom the book is intended, will pass judgment on its adequacy as a practical manual. The layman who uses Engineering handbooks only as reference books will be attracted at once by its handsome appearance (showing no evidence of war time economics), copious illustrations, generous bibliographies, and the wide range of subjects covered, from Mineralogy and geology to Elements of structural design and Electric engineering. He will be glad to see in a technical handbook a section on Wages and welfare by Edward K. Judd of Columbia University, and a section on Mine air, hygiene, explosions, and accidents by George S. Rice of the United States Bureau of Mines. It is easy to forgive a paucity of definitions, which perhaps are unnecessary in a book intended for engineers.

The volume is written by a staff of specialists under the editorship of Robert Peele, Professor of Mining Engineering in the School of Mines, Columbia University. The editor says in his preface concerning the contents of the volume that "The relatively small space allotted to coal mining is due chiefly to three considerations: first, a Coal-mining Pocketbook is already in existence; second, metal-mining methods are more varied than those for coal, due to the greatest diversity in form and occurrence of metalliferous deposits; third, having discussed in Section 10, under Metal-mining methods, the operations common to nearly all mining, the articles on coal mining are properly confined to the methods and data peculiar to that branch of the industry." He justifies the inclusion of much collateral material in view of the important part played by the allied branches of

engineering in equipping and operating modern mines. "The aim," he says, "has been to supply such data on machinery, power plant, electric transmission and structural design as the mining engineer may need when in the field and out of reach of his personal notes and technical library." Metallurgy is included because many mining undertakings include metallurgical plants but the subject is treated briefly in anticipation of a companion book on metallurgy, which undoubtedly is needed. Other sections which may be of interest to other than mining engineers are those on Mine organization and accounts, by J. R. Finlay; on Mining laws, by Horace V. Winchell; on Mine examinations, valuations, and reports, by William Young Westervelt; on Mathematics and mechanics, by C. H. Burnside; on Element of hydraulics, by J. R. Finch; on Engineering thermodynamics, by Edward D. Thurston.

American Association of Engineers

In a recently published directory of the American association of engineers is given some general information about the formation of the Society in 1915 and its growth. The object of the organization in the words of the preface is "to raise the standards of ethics of the engineering profession, and to promote the economic and social welfare of engineers, especially by:

"Affording means for the interchange of information beneficial to members of the engineering profession; maintaining a service clearing house for the benefit of the members; supervising proposed legislation affecting the engineering profession and taking any action necessary or advisable to safeguard the profession's welfare; promulgating the Association's ideas through proper publicity, and fostering a brotherly spirit among engineers.

"It goes into employment because this is the foundation of success of the individual. Other societies have neglected this fundamental point or at least have given it merely perfunctory attention. The Association believes in doing what other professional and business organizations are not doing for the advancement and protection of the highly trained man, to prevent the undermining of his work and influence by the unskilled or incompetent.

NOTES AND ANNOUNCEMENTS

"It goes into publicity, advertising, not for the benefit of the individual, but of all engineers, because it believes that engineers, as a whole, will be benefited if the public knows about the work already performed by the engineer and what can be gained in greater health, comfort and prosperity through his aid.

"It goes into politics, not the partisan kind, but into the science or practice of the

original meaning of the word, that of helping to direct affairs of public policy for the greatest good to the greatest number. It believes that the duty of all intelligent educated men or engineers, educated largely at public expense should be to devote a part of their time individually and collectively to the affairs of the community, especially those which touch upon the practice of engineering."

List of Periodicals Indexed

- Am Arch**—The American Architect. \$10; single numbers 25c. Architectural & Building Press, Inc., 243 W 39th St, New York.
- Am Chem Soc J**—Journal of the American Chemical Society. \$6. Charles L. Parsons, sec., Box 505, Washington, D. C.
- Am Gas Eng J**—American Gas Engineering Journal. \$3; single numbers 10c. American Gas Light Journal, Inc., 150 Nassau St, New York. Formerly American Gas Light Journal.
- Am Gas Inst Pro**—Proceedings of the American Gas Institute, tenth and eleventh annual meetings, 1915-1916. ea \$7.50 to libraries. American Gas Institute, 29 W 39th St, New York.
- Am Gas Light J**—See Am Gas Eng J
- Am Ind**—American Industries. \$1; single numbers 10c. National Manufacturers Co., 30 Church St, New York.
- Am Inst Arch J**—Journal of the American Institute of Architects. \$5.00; single numbers 50c. American Institute of Architects, The Octagon, Washington, D. C.
- Am Inst E E Pro**—American Institute of Electrical Engineers. Proceedings. \$10; single numbers \$1. F. L. Hutchinson, sec., 33 W 39th St, New York.
- Am Inst Min E Bul**—Bulletin of the American Institute of Mining Engineers. subs. \$10; single numbers \$1; to members, public libraries, and educational institutions, \$5; single numbers 50c. B. Stoughton, sec., 29 W 39th St, New York.
- Am Lumberman**—American Lumberman. \$4; single numbers 15c. American Lumberman, 431 S. Dearborn St, Chicago.
- Am Mach**—American Machinist. \$4; single numbers 20c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.
- Am Soc Heat & V E**—Transactions of the American Society of Heating and Ventilating Engineers. American Society of Heating and Ventilating Engineers, 29 W 39th St, New York.
- Am Soc M E J**—Journal of the American Society of Mechanical Engineers. \$3; single numbers 35c. American Society of Mechanical Engineers, 29 W 39th St, New York.
- Am Water Works Assn J**—Journal of the American Water Works Assn. \$5.00. American Water Works Assn., 2419 Greenmount Av, Baltimore, Md.
- Arch & Bldg**—Architecture and Building. \$2.50; single numbers 25c. William T. Comstock Co., 23 Warren St, New York.
- Arch Rec**—Architectural Record. \$3; single numbers 35c. Architectural Record Co., 115 W 40th St, New York.
- Automobile**—See Automotive Ind
- Automotive Ind**—Automotive Industries. \$3; single numbers 15c. Class Journal Co., 231 W 39th St, New York. Formerly Automobile
- Bldg Age**—Building Age. \$2; single numbers 25c. Architectural and Building Press, Inc., 243 W 39th St, New York.
- Boston Soc C E J**—Journal of the Boston Society of Civil Engineers. \$4 (ten numbers); single numbers 50c. Boston Society of Civil Engineers, 715 Tremont Temple, Boston.
- Chem & Met Eng**—Chemical and Metallurgical Engineering. \$3; single numbers 25c. McGraw-Hill Co., Inc., 10th Av, at 36th St, New York.
- Coal Age**—Coal Age. \$3; single numbers 15c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.
- Concrete**—Concrete. \$2; single numbers 20c. Concrete-Cement Age Pub. Co., Telegraph Bldg., Detroit, Mich. Formerly published as Concrete-Cement Age.
- Dom Eng**—Domestic Engineering. \$2; single numbers 10c. Domestic Engineering Co., 407 S Dearborn St, Chicago.
- Econ Geol**—Economic Geology. \$3.50; single numbers 60c. Economic Geology Pub. Co., 41 North Queen St, Lancaster, Pa. 1862. 127
- Elec Ry J**—Electric Railway Journal. \$8; single numbers 15c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York. 4011.227
- Elec R**—Electrical Review. \$5; single numbers 15c. International Trade Press, Inc., 515 Monadnock Bldg., Chicago. 4014.201
Formerly Electrical Review and Western Electrician.
- Elec R & W Elec'n**—See Elec R
- Elec W**—Electrical World. \$5; single numbers 15c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York. 4014.201
- Engineer**—Engineer. Thick paper ed £2 14s; Canadian subs £2 9s 6d; thin paper ed £2 9s 6d; Canadian subs £2 5s. Engineer, 33 Norfolk St, Strand, London, W.C. 2. 4013.219
- Eng & Contr**—Engineering and Contracting. \$3. Engineering and Contracting Pub. Co., 608 S Dearborn St, Chicago. 4013.221
- Eng & Min J**—Engineering and Mining Journal. \$5; single numbers 20c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York. 4013.201
- Eng N**—Engineering News-Record. \$5; single numbers 20c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York. 4013.202
Engineering News consolidated with Engineering Record beginning April 5, 1917.
- Eng Rec**—See Eng N
- Eng Soc W Pa**—Proceedings of the Engineers' Society of Western Pennsylvania. \$5; single numbers 50c. Engineers' Society of Western Pennsylvania, 563 Union Arcade Building, Pittsburgh, Pa. 8910.52
- Factory**—Factory. \$3; single numbers 25c. A. W. Shaw Co., Wabash Av & Madison St, Chicago.
- Foundry**—Foundry. \$1; single numbers 15c. Penton Pub. Co., Penton Bldg., Cleveland, O.
- Gas Age**—Gas Age. \$3; single numbers 20c. Progressive Age Pub. Co., 52 Vanderbilt Av, New York. 4013.257
Formerly Progressive Age.
- Gen Elec R**—General Electric Review. \$2; single numbers 20c. General Electric Co., Schenectady, N. Y. 4014.541
- Good Roads n s**—Good Roads new series. \$3; single numbers 10c. E. L. Powers Co., 150 Nassau St, New York.
- Heat & Ven**—Heating and Ventilating Magazine. \$1; single numbers 10c. Heating & Ventilating Magazine Co., 1123 Broadway, New York.
- Horseless Age**—Horseless Age. \$1; single numbers 10c. Horseless Age Co., 95 Madison Av, New York. 4011.242
Horseless Age consolidated with Motor Age, Motor World and Automotive Industries in June, 1913, with title Motor Age.
- Ill U Eng Exp Sta Bul**—Illinois University Engineering Experiment Station. Bulletin. Univ. of Ill., Urbana. 4494.000
- Ill U Eng Exp Sta Circ**—Illinois University Engineering Experiment Station. Circular. Univ. of Ill., Urbana.
- Illum Engr**—Illuminating Engineer. 10s 6d; single numbers 1s. Illuminating Engineering Pub. Co., 32 Victoria St, London, S. W. 1.
- Illum Eng Soc**—Transactions of the Illuminating Engineering Society. \$5; single numbers 75c. Illuminating Engineering Soc., 29 W 39th St, New York. 4013.201
- Ind Management**—Industrial Management. \$3; single numbers 35c. Industrial Management, 6 E 39th St, New York. 4013.200
Formerly Engineering Magazine.
- Inland Ptr**—Inland Printer. \$3; single numbers 30c. Inland Printer Co., 632 Sherman St, Chicago. 2120.24

LIST OF PERIODICALS INDEXED

Inst E E J—Journal of the Institution of Electrical Engineers. single numbers 7s. E. & F. N. Spon, Ltd., 57 Haymarket, London, S. W. 1.; Spon & Chamberlain, 123 Liberty St, New York.

The Institution premises have been taken over by H. M. Government and the temporary offices are at 1, Albemarle Street, London, W. 1.

Int Marine Eng—International Marine Engineering. \$2. Aldrich Pub. Co., 6 E. 39th St, New York.

Iron Age—Iron Age. \$5; single numbers 20c. Iron Age Pub. Co., 233 W 39th St, New York.

Iron Tr R—Iron Trade Review. \$4; single numbers 15c. Penton Pub. Co., Penton Bldg., Cleveland, O.

J Account—Journal of Accountancy. \$3; single numbers 30c. Ronald Press Co., 20 Vesey St, New York.

J Fr Inst—Journal of the Franklin Institute. \$5; single numbers 50c. Franklin Institute, Philadelphia.

Ind & Eng Chem—Journal of Industrial and Engineering Chemistry. \$6; single numbers 60c. American Chemical Society, Easton, Pa.

Locomotive—Locomotive. 50c; single numbers gratis; recent bound volumes \$1. Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.

Mach—Machinery. Engineering edition \$2; single numbers 20c. Industrial Press, 140 Lafayette St, New York.

Metal Ind—Metal Industry. \$1; single numbers 10c. Metal Industry, 99 John St, New York.

Metal Work—Metal Worker, Plumber & Steam Fitter. \$3; single numbers 10c. Architectural & Building Press, Inc., 243 W 39th St, New York.

Met & Chem Eng—See Chem & Met Eng

Mo U Sch Mines & Met Bul—Bulletin of the University of Missouri. School of Mines and Metallurgy. Univ. of Mo., Rolla.

Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri. School of Mines and Metallurgy. Technical Series. Univ. of Mo., Rolla.

Motor Age—Motor Age. \$3; single numbers 15c. Class Journal Co., 59 E. Madison St, Chicago.

Munic Eng—Municipal and County Engineering. \$2; single numbers 25c. Engineering Pub. Co., 702 Wulsin Bldg, Indianapolis, Ind.

Munic J—Municipal Journal. \$3; single numbers 10c; special numbers 25c. Municipal Journal and Engineer, Inc., 243 W 39th St, New York.

Power—Power. \$2; single numbers 10c. McGraw-Hill Co., Inc., 10th Av at 36th St, New York.

Ry Age—Railway Age. \$5; single numbers 15c. Simmons-Boardman Pub. Co., Woolworth Bldg., New York.

Formerly Railway Age Gazette
Ry Mech Eng—Railway Mechanical Engineer including the American Engineer. \$2; single numbers 20c. Simmons-Boardman Pub. Co., Woolworth Bldg., New York.

Formerly Railway Age Gazette, Mechanical edition
Ry R—Railway Review. \$4; single numbers 15c. Railway Review, 537 S Dearborn St, Chicago; 30 Church St, New York.

Formerly Railway and Engineering Review.

Sci Am—Scientific American. \$5; single numbers 10c. Munn & Co., 233 Broadway, New York.

Sci Am S—Scientific American Supplement. \$5, single numbers 10c. Munn & Co., 233 Broadway, New York.

Sibley J—Sibley Journal of Engineering. \$2; single numbers 20c. Sibley College, Cornell Univ., Ithaca, N. Y.

Suspended publication temporarily.

Stevens Ind—Stevens Indicator. \$1.50; single numbers 50c. Stevens Institute of Technology, Hoboken, N. J.

Textile World—Textile World Journal. \$3. Bragdon, Lord & Nagle Co., 334 4th Av, New York.

Formerly published as Textile World Record, monthly at \$2

U S Agric Bul—United States. Dept. of Agriculture. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

Contributions from the Bureau of Chemistry, Forest Service and Office of Public Roads are indexed, also selected publications of other bureaus.

U S Bur For & Dom Com—United States. Bureau of Foreign and Domestic Commerce. Special agents series. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

U S Bur For & Dom Com misc ser—United States. Bureau of Foreign and Domestic Commerce. Miscellaneous series. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

U S Bur Mines Bul—United States. Bureau of Mines. Bulletin. Distributed free of charge. U. S. Bureau of Mines, Washington, D. C.

U S Bur Mines Circ—United States. Bureau of Mines. Miners' circular. U. S. Bureau of Mines, Washington, D. C.

U S Bur Mines Tech Pa—United States. Bureau of Mines. Technical paper. U. S. Bureau of Mines, Washington, D. C.

U S Bur Stand Bul—United States. Bureau of Standards. Bulletin. Gratis to educational and scientific institutions and to government depositories. U. S. Bureau of Standards, Washington, D. C.

Sold to individuals by the Superintendent of Documents. \$1; single numbers 25c.

U S Bur Stand Circ—United States. Bureau of Standards. Circular. U. S. Bureau of Standards, Washington, D. C.

U S Bur Stand Tech Pa—United States. Bureau of Standards. Technologic papers. U. S. Bureau of Standards, Washington, D. C.

U S Nat Advisory Com—United States National Advisory Committee for Aeronautics. 2d annual report. U. National Advisory Committee for Aeronautics; \$1 Supt. of Doc.

U S Sp Cons Rep—United States. Special consular reports. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

W Soc E J—Journal of the Western Society of Engineers. \$3 (ten numbers); single numbers 50c. Western Society of Engineers, 1735 Monadnock Blk, Chicago.

Wis U Bul Eng S—Bulletin of the University of Wisconsin, Engineering Series. Univ. of Wis., Madison

Explanations

Book reviews in the Electrical World and Engineering News-Record are indexed in the Book Review Digest.

The abbreviations used are abr abridged; bibliog bibliography; cond condensed; cont continued; diag diagram; il illustrated; pl plate; por portrait; sup supplement; tr translated or translation or translator. A colon after an initial designates the most usual given name, as A: Augustus; B: Benjamin; C: Charles; D: David; E: Edward; F: Frederick; G: George; H: Henry; I: Isaac; J: John; L: Louis; N: Nicholas; O: Otto; P: Peter; R: Richard; S: Samuel; T: Thomas; V: Victor; W: William.

Sample Entry

Acceptances. W. G. Avery. Am Mach 48:659-62 Ap 18 '18.

This means that an article with the title Acceptances, written by W. G. Avery, was published in the American Machinist, volume 48, pages 659 to 662 (inclusive), and that the date of the periodical was April 18, 1918.

List of Occasional Pamphlets Indexed

- Bureau of railway economics.**
Winter railroading.
- California safety news.** Industrial accident commission, San Francisco. Bulletins.
V. 2, no. 3, March, 1918.
V. 2, no. 4, April, 1918.
- Council of national defense.** Woman's committee.
Woman in the war; a bibliography. M. R. Nims.
- Iowa state college.** Engineering experiment station, Ames. Bulletins.
39. Good roads and community life in Iowa. J. E. Brindley and J. S. Dodds.
46. Electric pumping with results of tests and operating records. H. W. Wagner.
- New York (state).** Department of labor. Special bulletin.
86. Dangers in the manufacture and industrial uses of wood alcohol.
- Press of the engineer school,** Washington, D.C.
Poisonous gases in warfare. H. E. Haferkorn and F. Neumann.
- United States.** Bureau of the Census. Bulletin.
135. Cotton production and distribution, season of 1916-17.
- United States.** Bureau of Foreign and Domestic Commerce. Tariff series.
27. Foreign tariff notes.
37. Customs tariff of Australia. L. Domeratzky.
39. British control of imports and exports, with lists of prohibited goods. L. Domeratzky.
- United States.** Bureau of Labor Statistics. Bulletins.
215. Industrial experience of trade-school girls in Massachusetts.
217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. M. K. Conyngton.
218. Wages and hours of labor in the iron and steel industry: 1907-1915, with a glossary of occupations.
225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
227. Proceedings of the Employment managers' conference, Philadelphia, Pa., April 2-3, 1917.
231. Mortality from respiratory diseases in dusty trades. F. L. Hoffman.
234. Safety movement in the iron and steel industry, 1907-1917. L. W. Chaney and H. S. Hanna.
235. Employment system of the Lake carriers' association. P. F. Brissenden.
236. Effect of the air hammer on the hands of stonecutters.
239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
240. Comparison of workmen's compensation laws of the United States up to December 31, 1917. C. Hookstadt.
242. Food situation in Central Europe, 1917.
244. Labor legislation of 1917.
- United States.** Bureau of Mines. Chart of properties of mine gases. G. A. Burrell.
Coal-mine fatalities in the United States 1917. comp. by A. H. Fay.
General information and rulings for the enforcement of the law regulating the manufacture, distribution, storage, use, or possession of explosives and their ingredients. F. S. Peabody. (Public No. 63, 65th Congress; H.R. 2932)
- War minerals investigation series.
2. Potash situation. A. W. Stockett.
- United States.** Department of Agriculture. Circulars.
78. Method of sale of nitrate of soda to farmers by the United States government.
94. Regulations for cotton warehouses. Farmers' bulletins.
475. Ice houses. L. C. Corbett.
703. Suggestions for parcel post marketing. L. B. Flohr and C. T. More.
865. Irrigation of alfalfa. S. Fortier.
888. Advice to forest planters in the Plains region. S. D. Smith.
904. Fire prevention and fire fighting on the farm. H. R. Tolley and A. P. Yerkes.
916. Successful community drying plant in Nebraska. C. W. Pugsley.
926. Some common disinfectants. M. Dorset.
930. Marketing butter and cheese by parcel post. L. B. Flohr and R. C. Potts.
953. Standard broom corn. B. E. Rothgeb.
963. Tractor experience in Illinois; a study of the farm tractor under corn-belt conditions. A. P. Yerkes and L. M. Church.
973. Soy bean: its culture and uses. W. J. Morse.
974. Clearing land. E. D. Strait.
984. Farm and home drying of fruits and vegetables. J. S. Caldwell.
992. Use of machinery in cutting corn. H. R. Tolley.
- Reports.**
115. Distribution of softwood lumber in the Middle West; wholesale distribution. O. M. Butler.
116. Distribution of softwood lumber in the Middle West; retail distribution. O. M. Butler.
- United States.** Federal trade commission. Food investigation.
Report on flour milling and jobbing.
- United States.** Fuel administration. Bureau of Conservation, Engineering Bulletin.
1. Boiler and furnace testing. R. T. Strohman.
- United States.** Geological Survey. Bulletin.
666-O. Our mineral supplies; bauxite and aluminum. J. M. Hill.
- United States.** National advisory committee for aeronautics, Washington, D.C.
3d annual report, 1917.
- United States.** Tariff Commission. Tariff information series.
4. Button industry.
5. Glass industry as affected by the war.
- University of Minnesota.** Bulletin.
5. Manganiferous iron ores of the Cuyuna district, Minnesota. E. Newton.
- University of Missouri.** Bulletin.
Law series 16. Equitable servitudes in Missouri. G. L. Clark.
- University of Texas.** Bulletin.
1733. Water supply and sanitation.
1735. Roads and pavements.
1752. Boiler waters: their chemical composition, use and treatment. W. T. Read; E. P. Schoch.
1755. Report on the Colorado coal field of Texas. N. F. Drake.
1758. Geological conditions near Bridgeport and Chico, Wise county, Texas, with special reference to the occurrence of oil. E. Böse.
1801. Notes on publications by the faculty, 1915-1917.
1827. Texas mathematic teachers' bulletin.
1916: no 39. Planning of simple homes. M. H. Ellis and R. Everett.

Industrial Arts Index

A Cumulative Index to Engineering and Trade Periodicals

January—December, 1918

Abrasive wheels. See Grinding wheels

Abrasives

Abrasive industry growing. *Iron Age* 102:849 O 3 '18

Increased production of artificial abrasives. F. J. Katz. *Chem & Met Eng* 19:673 N 1 '18; Same. *Iron Tr R* 63:1182 N 21 '18; Same abr. *Automotive Ind* 39:674 O 17 '18; Same abr. *J Fr Inst* 186:647-8 N '18

Reserve source of raw materials for artificial abrasives. C. Eldredge. *Am Mach* 49:804 O 31 '18

See also Alundum; Grinding and polishing

Absenteeism. See Employment management

Absorbent cotton. See Cotton, Absorbent

Absorption

Extraction of gasoline from natural gas by absorption methods. G. A. Burrell, P. M. Biddison and G. G. Oberfell. il diags U S Bur Mines Bul 120:1-66 '17; Excerpts. *Gen Elec R* 21:247-8 Ap '18

Swelling of fibrin in polybasic acids and their salts. M. H. Fischer and M. Benzinger. *Am Chem Soc J* 40:292-303 Ja '18

Swelling of gelatin in polybasic acids and their salts. M. H. Fischer and M. O. Hooker. *Am Chem Soc J* 40:272-92 Ja '18

Absorption (physiology)

Fischer's theory of water absorption in edema. W. J. Crozier. *Am Chem Soc J* 40:1611-12 O '18

Absorption of light

Absorption and phosphorescence. E. C. C. Baly. *Sci Am S* 86:277 N 2 '18

Absorption spectra

Absorption spectra of some derivatives of cyclopropane. E. P. Carr and C. P. Burt. *Am Chem Soc J* 40:1590-1600 O '18

Absorption spectra of the blue solutions of certain alkali and alkaline earth metals in liquid ammonia and in methylamine. G. E. Gibson and W. L. Argo. diags *Am Chem Soc J* 40:1327-61 S '18

Quinone-phenolate theory of indicators; the absorption spectra of solutions of phenolsulfonphthalein and its tetrabromo and tetraratio derivatives and their salts, and of analogous substances. E. C. White and S. F. Acree. *Am Chem Soc J* 40:1092-9 Jl '18

Abutments. See Bridges—Abutments

Abyssinia

Commerce

Abyssinia; present commercial status with special reference to possibilities for American trade. A. E. Southard. map U S Sp Cons Rep 81:1-71 '18

Academic freedom

Academic freedom. *Sci Am* 117:450 D 15 '17
Academic freedom. W. G. Greason. *Sci Am* 118:55 Ja 12 '18

Academic freedom again. *Sci Am* 118:50 Ja 12 '18

Accelerometer

Performance tests by accelerometer. H. C. Skinner. *Automotive Ind* 38:816-17+ Ap 25 '18

Acceptances

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War board sessions. *Elec Ry J* 51:526, 715, 980 Mr 16, Ap 13, My 18 '18

What the war board is doing for the industry. P. H. Gadsden. *Elec Ry J* 52:831-3 N 9 '18

Work. *Ry R* 63:29-31 J1 6 '18

American electrical society

Old-time national electrical society with headquarters in Chicago. W. E. Keily. *Elec R* 72:426-7 Mr 9 '18

American electrochemical society

Electrochemical industry essential to winning the war. C. G. Schluederberg. *Met & Chem Eng* 18:437 My 1 '18

Fall meeting, Atlantic City, Sept. 30-Oct. 2. *Chem & Met Eng* 19:609-15 O 15 '18; *Iron Age* 102:896-7 O 10 '18

Southern convention. *Met & Chem Eng* 18:500-12 My 15 '18

34th general meeting, Atlantic City, N. J., Sept. 30-Oct. 2, 1918. J. W. Richards. *J Ind & Eng Chem* 10:944-5 N '18

American electroplaters' society

5th annual convention, St. Louis, July 5-7. R. M. Edmonds. *Metal Ind* 15:285-9 J1 '17

6th annual meeting, Detroit, Mich., July 1-3, 1918. *Metal Ind* 16:301-7, 379 J1-Ag '18

American engineering standards committee

Proposed constitution for standards committee. *Eng N* 81:76 J1 11 '18

American foundrymen's association

Foundrymen's convention. R. T. Elmes. *il plans Metal Ind* 15:373-7, 417-28 S-O '17

23d annual convention, Milwaukee, Oct. 7-11. *Iron Age* 102:955-65 O 17 '18; *Iron Tr R* 63:907-12 O 17 '18; *Metal Ind* 16:445-58 O '18; *Foundry* 46:501-11 N '18

- American foundrymen's association—Continued**
War service committee. Iron Age 101:339 Ja 31 '18
- American fuse manufacturers' association**
Fuse-making contractors organize. Am Mach 48:599 Ap 4 '18
- American gas association**
Association to be organized June 6. Gas Age 41:423-4, 525-6 My 1, Je 1 '18
Consolidation of the technical and commercial societies of the gas industry. Gas Age 41:545-51 Je 15 '18
New association launched, June 6. Am Gas Eng J 108:549-50 Je 8 '18
Policy of the association. G: B. Cortelyou. Gas Age 41:551 Je 15 '18
- American gas institute**
Plans for amalgamation of the American gas institute and the National commercial gas association rapidly approaching completion. Am Gas Eng J 108:235-6, 365-9 Mr 9, Ap 20 '18; Gas Age 41:423-4 My 1 '18
- American gear manufacturers' association**
2d annual meeting, White Sulphur Springs, W. Va., April 18-20. Iron Age 101:1080-3 Ap 25 '18; Elec R 72:761 My 4 '18
Semi-annual meeting, Syracuse, N.Y., Sept. 19-21. Iron Age 102:750-2 S 26 '18; Iron Tr R 63:730-1 S 26 '18; Automotive Ind 39:527-9 S 26 '18; Elec R 73:543 O 5 '18
- American hardwood manufacturers' association**
Hardwood associations to unite as one. Am Lumberman 2267:35+ O 26 '18
Hardwood interests form new organization. Am Lumberman 2228:40-2 Ja 26 '18; Iron Tr R 62:173 Ja 10 '18
Semiannual meeting, Memphis, Tenn., May 25. Am Lumberman 2246:54-6 Je 1 '18
- American hide & leather company**
Report for the fiscal year ended June 30, 1918. Ry Age 65:899-900 N 15 sec 2 '18
- American institute of accountants**
Annual meeting, J Account 26:296-9 O '18
Board of examiners; May, 1918, examinations. J Account 25:401-12 Je '18; Answers. S. Walton and H. A. Finney. 26:143-56, 222-33 Ag-S '18
Board of examiners; November, 1917, examination questions. J Account 24:413-23 D '17; Answers. S. Walton and H. A. Finney. 25: 64-78, 140-8 Ja-F '18
- American institute of architects**
Address of president, J: L. Mauran. Am Arch 113:555-8 My 8 '18
Federating the building industry, T: R. Kimball. Am Arch 113:719 My 29 '18
51st annual convention, Philadelphia, April 24-26. Am Inst Arch J 6:190-8 Ap '18; Am Arch 113:551-64 My 8 '18
Illinois chapter A. I. A. elects new officers; Geo. W. Maher succeeds D. H. Burnham as president. Am Arch 114:403-4 O 2 '18
National organization. Am Arch 112:431-2 D 12 '17; Discussion. 113:42-3, 89-91, 119-20, 155-8, 471-6, 717-18 Ja 9, 23-F 6, Ap 17, My 29 '18
National organization of architects; a defense. R. C. Sturgis. Am Arch 113:349-51 Mr 20 '18
Record of the Institute's war service, J: L. Mauran. Am Inst Arch J 5:641-3 D '17
- American institute of chemical engineers**
10th annual meeting, St Louis, Dec. 5-8. Met & Chem Eng 17:684 D 15 '17; J Ind & Eng Chem 10:77-9 Ja '18
10th semi-annual meeting, Gorham, N. H., June 19-22. J Chem & Met Eng 19:4-8 Jl 1 '18; J Ind & Eng Chem 10:651-3 Ag '18
- American institute of electrical engineers**
A. E. F. section. Elec R 73:252 Ag '17 '18
Committee reports presented June, 1918. Am Inst E E Pro 37:935-76 Ag '18
Committees for the year beginning August 1, 1918. Elec R 73:328 Ag 31 '18
Joint meeting with the Association of Iron and steel electrical engineers, Cleveland, O., March 8. Elec R 72:457-8 Mr 16 '18; Elec W 71:580-1 Mr 16 '18
Report of the board of directors for fiscal year ending April 30, 1918. Am Inst E E Pro 37:717-38 Je '18
- 6th annual midwinter convention, New York, Feb. 15-16. Elec R 72:342-3 F 23 '18; Elec Ry J 51:373 F 23 '18; Elec W 71:424-5 F 23 '18; Power 47:312 F 26 '18
- 34th annual business meeting, New York city, May 17. Elec R 72:873 My 25 '18; Am Inst E E Pro 37:sup186 Je '18
- 34th annual convention; abstracts of papers. J diags Elec R 72:1080-3 Je 29 '18; Elec Ry J 51:1229-31 Je 29 '18
- 34th annual convention, Atlantic City, N. J., June 26-28. Elec R 72:1086-9; 73:14-17 Je 29-Jl 6 '18; Elec W 71:1374-5; 72:28-31 Je 29-Jl 6 '18; Power 48:66-8 Jl 9 '18; Munic J 45: 61+ Jl 20 '18; Am Inst E E Pro 37:sup239-44 Ag '18
- 335th meeting, New York, Dec. 14; with abstracts of papers. Elec W 70:1208 D 22 '17
- American institute of metals**
Foundrymen's convention, R. T. Elmes. J plans Metal Ind 15:373-7, 417-28 S-O '17
To join the American institute of mining engineers. Metal Ind 16:223-4 My '18; Abstract. Iron Tr R 62:1052 Ap 25 '18
- American institute of mining engineers**
Address of president to local sections. S. J. Jennings. Am Inst Min E Bul 137:sup8-13 My '18
American institute of metals to join the American institute of mining engineers. Metal Ind 16:223-4 My '18; Abstract. Iron Tr R 62:1052 Ap 25 '18
A. I. M. E. in Colorado. Eng & Min J 106:377 Ag 31 '18
Board of directors; portraits. Eng & Min J 106:378-80 Ag 31 '18
Consider industrial relations; remarks on meeting of A. I. M. E. R. D. Hall. Coal Age 13:413-14, 458-9, 499-500, 544-5 Mr 2-23 '18
Institute and the war. B. Stoughton. J Eng & Min J 106:375-7 Ag 31 '18
Milwaukee meeting, Oct. 7-12. J. W. Richards. J Ind & Eng Chem 10:945-6 N '18
- 116th annual meeting, New York, Feb. 18-21. Iron Age 101:554-9 F 28 '18; Iron Tr R 62: 549-52 F 28 '18; Eng & Min J 105:391-2, 426-9 P 23-Mr 2 '18; Met & Chem Eng 18:227-31 Mr 1 '18
- 117th meeting, Denver and Colorado Springs, Sept. 2-5. Chem & Met Eng 19: 278-86 S 15 '18; Eng & Min J 106:501 S 14 '18; Am Soc M E J 40:858 O '18
- 118th meeting of the Institute of metals division, Milwaukee, Oct. 8. Foundry 46:530-1 N '18
Reports for the year 1917. Am Inst Min E Bul 134:sup9-24 F '18
- 23d annual convention, Milwaukee, Oct. 7-11. Iron Age 102:955-65 O 17 '18; Metal Ind 16: 445-58 O '18; Foundry 46:501-11 N '18
- American iron and steel institute**
New committee for scrap. Iron Age 101:360 Ja 31 '18
New members. Iron Age 101:1532 Je 13 '18
Stricter control over ferro alloys; Institute to act as clearing agent. Iron Tr R 62:439-40 F 14 '18
- American iron, steel and heavy hardware association**
Annual convention, Atlantic City, N.J. Iron Age 101:1394-6 My 30 '18
- American locomotive company**
Annual report for fiscal year ended June 30, 1918. Ry Age 65:897 N 15 sec 2 '18
- American machinist (periodical)**
Anent our fortieth birthday. W. D. Forbes. Am Mach 48:20-1 Ja 3 '18
Value of the American machinist as a college textbook. J. A. De Turk. Am Mach 48:531-2 Mr 28 '18
- American manufacturers export association**
Exporters in drive for world trade. Iron Tr R 63:1078-9 N 7 '18
- American metric association**
2d meeting, Pittsburgh, Pa., Dec. 28-29, 1917. J Ind & Eng Chem 10:154 F '18
- American oak manufacturers' association.** See American hardwood manufacturers' association

American ordnance base depot

Acres of shops to form ordnance base in France. diags Eng N 80:23-4 Ja 3 '18
Electrical preparation for ordnance base in France. Elec W 71:95 Ja 12 '18

American pig iron association

Annual meeting, Pittsburgh, Feb. 7. Iron Age 101:472 F 14 '18

American railway accounting officers, Association of. See Association of American railway accounting officers**American railway bridge and building association**

28th annual convention, Chicago, Oct. 15-17. Ry Age 65:705-13 O 18 '18; Ry R 63:559-61 O 19 '18

American railway commission

American railway commission in Russia. J. E. Greiner. Ry R 63:170-2 Ag 3 '18; Same cond. Eng & Contr 50:56-8 JI 17 '18

American railway engineering association

Brief summarization of reports submitted to 19th annual convention. Eng N 80:547-50 Mr 21 '18; Elec Ry J 51:565-7, 618 Mr 23-30 '18
19th annual convention, Chicago, March 19-21. Ry R 62:417-25 Mr 23 '18; Eng N 80:632 Mr 23 '18
President's address. J. G. Sullivan. Ry R 62:437-9 Mr 23 '18
Recommendations of fourteen committees adopted. Eng N 80:606 Mr 28 '18

American railway express company

Four express companies to be consolidated. Ry Age 64:1377-82 Je 7 '18
Outline of government's scheme of organization for handling express business during the war. E. A. Stedman. Ry R 63:531-3 O 12 '18

American railway master mechanics' association

Joint meeting with the Master car builders' association, Chicago, June 19-20. Ry Age 64:1514-32 Je 21 '18; Ry R 62:938-51 Je 29 '18
Past and future of the mechanical associations. W. Schlafke. Ry R 62:904-6 Je 22 '18; Same cond. Ry Age 64:1515-16 Je 21 '18

American road builders' association

15th annual convention, St Louis, Feb. 4-7. Good Roads n s 15:75-8+ F 9 '18; Munic J 44:129-30 F 16 '18
History of the association and the St Louis convention program. Good Roads n s 15:65-9 F 2 '18
Proposed changes in constitution. Good Roads n s 16:36 JI 27 '18

American smelting and refining company

Report for the fiscal year ended Dec. 31, 1917. Eng & Min J 105:682 Ap 13 '18

American society for municipal improvements

Reports at the 24th annual convention. Good Roads n s 16:140-2+ O 12 '18
24th convention, Buffalo, N.Y., Oct. 2-5. Munic J 45:277-80 O 12 '18

American society for testing materials

21st annual meeting, Atlantic City, June 25-28. Iron Age 102:14-18 JI 4 '18; Eng N 81:56 JI 4 '18; Iron Tr R 63:33 JI 4 '18; Ry Age 65:27-30 JI 5 '18; Power 48:68-9 JI 9 '18; Munic J 45:61 JI 20 '18

American society of agricultural engineers

11th annual meeting, Chicago, Dec. 27-29, 1917. Eng N 80:52 Ja 3 '18

American society of civil engineers

Committee on development. Eng N 80:1209-10; 81:239-41 Je 27, Ag 1 '18; Resolutions. Am Soc M E J 40:712 Ag '18
Committee on development: its purpose and field. A. N. Talbot. Eng & Contr 50:381-2 O 23 '18

Development committee of American society appointed. Eng N 81:658-60, 688-9 O 10 '18
Directors pass a momentous resolution; committee on development appointed. Eng & Contr 50:49-50 JI 17 '18

Low working stress for spare-end steel columns is recommended by column committee; abstracts. Eng N 80:250-3 F 7 '18; Eng & Contr 49:223-5 F 27 '18

Prominent engineers approve development-committee plan. Eng N 81:134-6 JI 18 '18
Revised constitution voted down. Eng N 80:532 Mr 14 '18

Shall the American society defeat the revised constitution? Eng N 80:325, 375-7, 424-5, 527 F 14-28, Mr 14 '18
65th annual meeting, Jan. 16. Eng N 80:139-40 Ja 17 '18

Society welcomed to its new home in the Engineering societies' building, New York. Eng N 79:1144-7 D 20 '17; Am Inst E E Pro 37:sup4-5 Ja '18; Am Soc M E J 40:78-9 Ja '18

Society's war activities and journalistic criticism. C. W. Hunt. Eng N 79:1091-2 D 13 '17

American society of heating and ventilating engineers

Cooperation between the National district heating association and the American society of heating and ventilating engineers. D. L. Gaskill. Am Soc Heat & V E 23:585-90; Discussion. 591-4 '17

Engineers' fuel saving suggestions at a meeting of New York chapter. P. West; W. M. Mackay. Metal Work 89:290-2 Mr 1 '18

Proceedings and papers of the semi-annual meeting, July 18-20, 1917. Am Soc Heat & V E 23:317-678 '17

Proceedings and papers of the twenty-third annual meeting, New York, Jan. 16-18, 1917. Am Soc Heat & V E 23:1-314 '17

Report of committee on engineering co-operation. Am Soc Heat & V E 23:393-406 '17

Report of committee on school house standards. Am Soc Heat & V E 23:411-14 '17

Report of committee on standard method of testing air washers. Am Soc Heat & V E 23:407-10 '17

Semi-annual meeting, Buffalo, N.Y., June 26-28. Heat & Ven 15:27-42 JI '18; Metal Work 90:15-20 JI 5 '18; Dom Eng 84:17-20 JI 6 '18; Am Soc M E J 40:709-10 Ag '18

24th annual meeting, New York, Jan. 22-24. Metal Work 89:171-80 F 1 '18; Dom Eng 82:176+ F 2 '18; Power 47:203-4 F 5 '18; Heat & Ven 15:28-44 F '18

American society of mechanical engineers

Annual meeting of Boston section, May 29. Power 47:350-2 Je 11 '18

Committee appointments. C. W. Rice. Am Soc M E J 40:161-2 F '18

Committee on development. Am Soc M E J 40:794 S '18

Cooperation between the A. S. M. E. and the War industries board. Am Soc M E J 40:877 O '18

First public discussion of the A. S. M. E. rules for conducting performance tests of power plant apparatus. Am Soc M E J 40:123-35 F '18

John A. Stevens trust fund. Am Soc M E J 40:479 Je '18

Joint committee on gages of the American society of mechanical engineers and the society of automotive engineers. Am Soc M E J 40:70-2 Ja '18

Limiting the impurities in coal; fuel session. Iron Age 101:1534-7 Je 13 '18

New by-laws governing sections of the A.S. M.E.; what they permit and encourage. L. C. Marburg. Am Soc M E J 40:209-11 Mr '18

Progress of the Society's technical committee. Am Soc M E J 40:792-3 S '18

Relation of engineering to industrial management. D. S. Kimball. Am Soc M E J 40:121-2 F '18

Report of committee on limits and tolerance in screw thread fits. charts diags Am Mach 48:913-26 My 30 '18; Same. Am Soc M E J 40:661-75 Ag '18; Excerpts. Mach 24:1061-2 JI '18

Report of the committee on standardization of flanges and pipe fittings. diags Am Soc M E J 40:850-3 O '18

Reports of standing committees of administration. Am Soc M E J 40:1062-6 D '18

Sections reports and progress for the year. Am Soc M E J 40:797-801 S '18

Service rendered through its Engineering resources committee. C. W. Rice. Am Soc M E J 40:317-18 Ap '18

American society of mechanical engineers—Cont.

Spring meeting, Worcester, Mass., June 4-7.
Am Mach 48:1022-3, 1070-2 Je 13-20 '18; Iron
Age 101:1550-1 Je 13 '18; Iron Tr R 62:1499-
1501 Je 13 '18; Am Soc M E J 40:pt 1, 521-60
Jl '18; Power 47:886-8 Je 13 '18

Suggested extension of the scope of transactions.
S. A. Moss. Am Soc M E J 40:396 My '18

38th annual meeting, New York, Dec. 4-7. Am
Soc M E J 40:1-72 Ja '18; Am Mach 47:1097-
9 D 20 '17; Elec Ry J 50:1077 D 15 '17; Elec
W 70:1115-18 D 8 '17; Eng N 79:1122-5 D 13
'17; Iron Age 100:1424-7+ D 13 '17; Iron
Tr R 61:1286-9 D 13 '17; Power 46:813-14 D
11 '17

Usefulness of a technical society in war; in-
quiries received by A. S. M. E. in one week.
C. W. Rice. Am Soc M E J 40:401-2 My '18
War industries readjustment committee. Am
Soc M E J 40:695-6 Ag '18

American society of refrigerating engineers

Meeting, New York section, Sept. 18. Power
48:507 O 1 '18

American society of sanitary engineering

13th annual convention, Chicago, Oct. 14-15.
Dom Eng 85:87-9+ O 19 '18; Metal Work 90:
479-83 O 25 '18

American supply and machinery manufacturers association

Supply conventions, Cleveland, May 15-17.
Iron Age 101:1346-51 My 23 '18; Am Mach
48:1095-9 Je 27 '18

American telephone and telegraph company

Annual report for 1917. Elec W 71:534 Mr 16
'18
Telegraph companies' compensation. Ry R 63:
580 O 19 '18

American tractor association

Tractor makers protest curtailment; 30 manu-
facturers form association. Automotive Ind
39:657-9+ O 17 '18

American trade acceptance council

Campaign for the development of the trade
acceptance policy. Am Ind 18:26 Mr '18

American university experiment station

Institute for research in synthetic organic
chemistry. A. S. Loevenhart. J Ind & Eng
Chem 10:971-3 D '18

American water works association

Constitution, list of past presidents, officers
1918-1919, committees 1918-1919, roll of
honor, members. Am Water Works Assn J
5:supl-114 S '18

President's address. T. A. Leisen. Am Water
Works Assn J 5:250-1 S '18

Proceedings 38th annual convention, St. Louis,
Mo., May 13-17. Am Water Works Assn J
5:363-84 S '18; Eng N 80:973, 1015+ My 16-
23 '18

Progress report of committee on mechanical
analysis of sands. Am Water Works Assn J
5:345-54 S '18

Proposed amendments to the constitution.
map Am Water Works Assn J 5:355-62 S
'18

Report of City planning committee. il Am
Water Works Assn J 5:1-9 Mr '18

Report of committee on war burdens of water
works in the United States. Am Water
Works Assn J 5:303-44 S '18

Report of the 38th annual convention, St
Louis, C: C. Brown. Munic J 44:431-2, 452-
3, 472-3 My 25-Je 8 '18

38th annual convention, St. Louis, May 13-18.
Eng N 80:973, 1015+ My 16-23 '18

American wood preservers' association

14th annual convention, Chicago, Jan. 22-24.
Ry R 62:129-30 Ja 26 '18; Am Lumberman
22:28:59 Ja 26 '18; Ry Age 64:277-80 F 1 '18

American woolen company

Annual report for the year ending Dec. 31,
1917. Textile World 53:4132 Mr 9 '18

American zinc institute

Committee appointed to effect permanent or-
ganization. Chem & Met Eng 19:225 S 1 '18

1st meeting, St. Louis, July 29. Eng & Min J
106:68-9, 230 Jl 13, Ag 3 '18

Amides

Rotatory powers of the amides of active
 α -hydroxy acids. C. S. Hudson. Am Chem Soc
J 40:813-17 My '18

Amines

Halogen derivatives of aromatic amines and
their analysis. F. E. Dains, T. H. Vaughan
and W. M. Janney. Am Chem Soc J 40:930-6
Je '18

Phthalic acid derivatives; constitution and
color, the action of amines upon dichloro-
phthalic anhydrides. D: S. Pratt and G. A.
Perkins. Am Chem Soc J 40:214-19 Ja '18

Studies on proteinogenous amines. K. K.
Koessler and M. T. Hanke. Am Chem Soc J
40:1716-26 N '18

Amino acids

Nitrogenous auxoamylases. E. W. Rockwood.
Am Chem Soc J 39:2745-52 D '17

Aminoaryl arsonic acids

Nitro- and aminoaryl arsonic acids. W. A.
Jacobs, M. Heidelberger and I. P. Rolf. Am
Chem Soc J 40:1550-90 O '18

Ammeters

Ammeters were reversed. E. C. Parham.
Power 47:93 Ja 15 '18

Ammonia

Absorption spectra of the blue solutions of
certain alkali and alkaline earth metals in
liquid ammonia and in methylamine. G. E.
Gibson and W. L. Argo. diags Am Chem Soc
J 40:1327-61 S '18

Adiabatic compression of ammonia. Power 47:
273 F 19 '18

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in soil extracts and physiological solutions.
E. S. Davison. diags J Ind & Eng Chem 10:
600-5 Ag '18

Ammonia for fire extinguishing. A. Schleimer.
Mach 24:443-4 Ja '18

Ammonia program for 1918. C: W. Merrill. J
Ind & Eng Chem 10:480-2 Je '18

Ammonia, refrigeration and munitions. Met &
Chem Eng 18:277 Mr 15 '18; Discussion. 18:
389-90 Ap 15 '18

Ammonia-saving suggestion. Power 48:250
Ag 13 '18

Continuous liquor sampler. K. Norton. diags
Gas Age 42:112 Ag 1 '18

Determination of loosely bound nitrogen as
ammonia in eggs. N. Hendrickson and G.
C. Swan. diags J Ind & Eng Chem 10:614-17
Ag '18

Development in nitric acid manufacture in
the United States since 1914. E. J. Franke.
Chem & Met Eng 19:395-6 S 25 '18; Same. J
Ind & Eng Chem 10:830-2 O '18; Same. Gen
Elec R 21:804-6 N '18

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to nitric acid. G. E. Taylor and J. H.
Capps. diag J Ind & Eng Chem 10:457-9 Je
'18

Effect of hydrochloric acid on the nitrogen-
hydrogen equilibrium. E. B. Ludlam. Met
& Chem Eng 18:208 F 15 '18

Electric power for nitrogen fixation. E. K.
Scott. diag Am Inst E E Pro 37:779-92 Jl
'18; Same cond. Chem & Met Eng 19:411-14
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Food administration urges conservation of
ammonia. Power 48:105 Jl 16 '18

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mony and solutions of sodium in liquid am-
monia. E: B. Peck. diags Am Chem Soc J
40:335-47 F '18

Latent heat of pressure variation of liquid
ammonia. N. S. Osborne and M. S. Van
Dusen. U S Bur Stand Bul 14:433-8 Je 24 '18

Latent heat of vaporization of ammonia. N. S.
Osborne and M. S. Van Dusen. U S Bur
Stand Bul 14:439-72 Je 24 '18; Same cond. Am
Chem Soc J 40:14-25 Ja '18; Excerpts.
Power 47:632-3 Ap 30 '18

Liquid ammonia in a Dutch gas plant. M.
Cluven. Gas Age 41:176-7 F 15 '18

Oxidation of ammonia; patent. Met & Chem
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Ammonia—Continued

- Recovering ammonia at tar-distilling plants. C. R. Woodward. *Met & Chem Eng* 18:299-301 Mr 15 '18
- Relation between efficiency of refrigerating plants and the purity of their ammonia charge. F. W. Frerichs. *il diags J Ind & Eng Chem* 10:202-11 Mr '18
- Saving ammonia and coal. B. Lamb. *Power* 47:703 My 14 '18
- Solubility of ammonia; abstract. M. J. Eichhorn. *Am Soc M E J* 49:781-2 S '18
- Solubility of naphthalene in ammonia. *Gas Age* 41:28-30 Ja 1 '18
- Specific heat of liquid ammonia. N. S. Osborne and M. S. Van Dusen. *U S Bur Stand Bul* 14:397-432 Je 24 '18; *Same cond. Am Chem Soc J* 40:1-13 Ja '18
- Starting and stability phenomena of ammonia-oxidation and similar reactions. F. G. Liljenroth. *Chem & Met Eng* 19:287-93 S 15 '18; *Same. Gen Elec R* 21:807-15 N '18
- Test taper for ammonia leaks. C. E. Freeman. *diags Power* 48:396 S 10 '18
- Testing for ammonia in brine. *Power* 47:90 Ja 15 '18
- Vapor pressure of liquid ammonia up to the critical temperature. F. G. Keyes and R. B. Brownlee. *diags Am. Chem Soc J* 40:25-45 Ja '18
- Work of the British nitrogen products committee; plans under way for cyanamide, ammonia, oxidation, and experimental synthetic ammonia plants. *Met & Chem Eng* 18:77-81 Ja 15 '18
- Ammonia compressors**
Electric motors for ammonia compressor drive; with discussion. *Power* 47:169 Ja 29 '18
- Oil lantern jammed on piston rod. E. W. Miller. *diag Power* 47:660 My 7 '18
- Ammonia condensers**
Condenser was full of ammonia. T. T. Grover. *il Power* 47:792-3 Je 4 '18
- Selection of ammonia condensers. M. A. Saller. *Power* 47:359-60 Mr 12 '18
- Throttling ammonia. C. H. Herter. *Power* 48:530-1 O 8 '18
- Ammonium nitrate**
Ammonium nitrate from coal gas. *Sci Am S* 86:231 O 12 '18
- Ammonium persulfate**
Effect of the iron content of ammonium persulfate on its photographic reducing power. S. E. Sheppard. *J Fr Inst* 186:115-19 Jl '18
- Ammonium salts**
Neutral ammonium salts of organic acids and their substituted derivatives. L. McMaster and L. Wright. *Am Chem Soc J* 40:683-93 Ap '18
- Ammonium sulfate**
Saturation apparatus for recovery of ammonium sulphate. *diag Gas Age* 41:30 Ja 1 '18
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Plant of the Oliver loading company. Old Bridge, N.J., built in sixty days. *il Am Arch* 113:389-92 Mr 27 '18
- See also* Projectiles; Shells (projectiles); Shrapnel shells
- Amphibia. See** Batrachia
- Amyl acetate**
Manufacture of amyl acetate and similar solvents from petroleum pentane. B. T. Brooks, D. F. Smith and H. Essex. *J Ind & Eng Chem* 10:511-15 Jl '18
- Amylase. See** Diastase
- Anacoda copper mining company**
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- Analysis, Chemical. See** Assaying; Chemistry. Analytic; also names of substances analyzed, e.g. Coal—Analysis, Gas analysis
- Analysis, Metallurgical. See** Metallurgical analysis
- Analysis, Spectrum. See** Spectrum analysis
- Anchor chains. See** Chains

Anchors

- New Ryan stockless anchor. *diags Int Marine Eng* 23:551-2 S '18
- Anchors, Guy**
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- Principal bridges of the world—a comparison. diags (supp) Engineer 125:463 My 31 '18; Same. Sci Am S 86:287-8 N 2 '18.

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- Illinois Central bascule bridge is hand operated. il diags Eng N 80:296-8 F 14 '18

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- Repairing a bascule bridge trunnion bearing. diags Ry Age 65:771-2 N 1 '18
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- City designs forms for Portland (Ore.) grade separation. il diags plans Eng N 80:1132-4 Je 13 '18

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- Cost of constructing concrete arch bridge over Platte river in Nebraska. G. K. Leonard. Eng & Contr 49:222-3 F 27 '18

- Decision of U. S. District court of Iowa on certain Luten patents for concrete bridges. Eng & Contr 49:94 Ja 23 '18; Munic J 44:79-80 Ja 26 '18; Eng N 80:144 Ja 17 '18

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- Design and construction features of concrete viaduct approach to Central Ave. bridge, Kansas City, Kan. il Eng & Contr 50:76-7 JI 24 '18

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- Low-water highway bridges in Oklahoma. J. W. Evans. il Munic Eng 55:143-4 O '18

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- Oregon-Washington railway separates grades for three miles at Portland. il diags plans Eng N 80:1097-1101 Je 6 '18

- Placing 52-ton pre-cast beams on North Toronto bridges of C. P. Ry. il diag Eng & Contr 50:86-8 JI 24 '18

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- Rebuilding the C. B. & Q. R. R. bridge over the Platte river, near Grand island, Neb. il diags Ry R 63:117-20 JI 27 '18

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- Reinforced-concrete flat-slab railway bridges; abstracts. A. B. Cohen. il diags plans Ry Age 65:17-20 JI 5 '18; Eng & Contr 50:211-14 Ag 28 '18

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See Also Railroads—Track elevation

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New system of suspension bridges. *diags Eng & Contr* 49:529 My 29 '18

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Improving the technique of hardness measurements. *diag Automotive Ind* 38:912 My 9 '18

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How box sills and partition stops are built in the Middle West. T. Thorsen. diags Bldg Age 40:418-19 S '18

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See Railroads—Canada

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Car inspection

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See also Bridges, Concrete; Columns, Concrete; Concrete—Finishing; Concrete, Reinforced; Concrete blocks; Concrete houses; Concrete lining; Concrete placing; Concrete plants; Concrete slabs; Concrete stone; Cribs, Concrete; Dams, Concrete; Domes; Fireproof construction; Floors, Concrete; Poles, Concrete; Reservoirs, Concrete; Retaining walls, Concrete; Roofs, Concrete; Sewers, Concrete; Ships, Concrete; Silos, Concrete; Tanks, Concrete; Trestles, Concrete; Walls, Concrete; Water towers, Concrete

Cost

- Cement tile machinery co. aids in estimating concrete costs. Eng & Min J 103:387 Mr 3 '17
- Concrete buildings cost less than steel. Concrete 11:173-4 D '17

Concrete construction—Cost—Continued

- Detailed cost figures on forms and concrete for floors. F. R. Walker. *il Concrete* 12:199-203 Je '18
- Economy in the design of concrete buildings. C. W. Mayers. *diags Boston Soc C E J* 5: 53-79 F '18; Same cond. *Concrete* 12:115-20 Ap '18; Discussion. F. S. Bailey and others. *Boston Soc C E J* 5:307-20 Je '18
- Labor costs on a gravity type quay wall. E. W. Robinson. *il diags Concrete* 12:49-51 F '18
- What will your building cost? *Concrete* 12: 226 Je '18

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- Cantilever concrete trestle bents carry steel spans. *il diags Eng N* 79:1107-8 D 13 '17
- Cantilevers carry concrete floors over loading platforms. *il diags plan Eng N* 80:411-12 F 23 '18
- Concrete snow sheds on the Union Pacific. *il diags map Ry Age* 63:1159-64 D 28 '17; Excerpts. *Eng & Contr* 49:294-5 Mr 20 '18
- Concrete stair design. A. M. Wolf. *il diags Concrete* 13:6-9 Jl '18
- Condensers with seventy-foot water level variation. F. R. Borsius. *il diags plans Power* 47:142-4 Ja 29 '18
- Designing wall beams in concrete flat-slab buildings. A. M. Wolf. *diags Eng N* 80: 1124-6 Je 13 '18
- Diagram for facilitating design of reinforced concrete T-beams. F. W. Powelson. *Eng & Contr* 49:88-9 Ja 23 '18
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- Economical proportion of concrete slabs and simple concrete beams. E. Davis. *Am Arch* 113:779-80 Je 5 '18
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- Freight station and warehouse in Chicago has 23 acres of floor. *il diags plans Eng N* 80: 405-8 F 28 '18
- Helping Hoover with concrete—storage cellars. *il diag plan Concrete* 12:191-3 Je '18
- How to proportion unsymmetrical concrete arches. J. P. Schwada. *diags Eng N* 80:415-6 F 28 '18
- Joint committee report. *Concrete* 11:60-1, 93-4, 118-19, 158; 12:64-6 Ag-N '17, F '18
- Main beams in concrete garage are forty-nine feet long. *il diags plans Eng N* 80:1051-4 My 30 '18

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- New freight house of the Pennsylvania lines in Chicago. *il diags plans Ry R* 62:365-71 Mr 16 '18; *Ry Age* 65:215-19 Ag 2 '18
- Notes on flat slab design: thickness of slab, column heads and bending in columns. A. M. Wolf. *diags Eng & Contr* 49:210-13 F 27 '18
- Problems of designing the reinforced-concrete ship. R. J. Wig and S. C. Hollister. *diags Eng N* 81:167-71 Jl 25 '18
- Reinforced-concrete building has 2000-pound floor load. *diags plan Eng N* 79:1065-6 D 6 '17
- Reinforced-concrete flumes poured in 100-foot lengths. *il diags plans Eng N* 80:567-8 Mr 21 '18
- Revised code of Bureau of yards and docks for design of reinforced concrete structures. *Eng & Contr* 49:498-500 My 22 '18
- Stairs, crane girders, towers, etc. *Concrete* 12:215 Je '18
- Undercrossing wing wall designed to limit base pressure. *diags plan Eng N* 79:1054-5 D 6 '17
- War time economy in design. *Am Arch* 114: 138 Jl 31 '18

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- Comparative cost estimating for designers of reinforced concrete buildings. C. W. Mayers. *diags Eng & Contr* 49:313-18 Mr 27 '18

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- Construction joints. *Concrete* 12:142 Ap '18
- Expansion joints found necessary in concrete revetment. *Eng N* 80:755 Ap 18 '18
- Great concrete reservoir built with portable mixers. E. J. Lieber. *il diags Eng N* 80:702-4 Ap 11 '18
- Hub and spigot expansion joints for reinforced concrete irrigation flumes. *diags plan Eng & Contr* 49:594 Je 12 '18
- Watertight expansion joint designed for concrete retaining wall. *diags Eng N* 80:354 F 21 '18

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- Spalling of reinforced concrete in moist location. F. E. Turneure. *il Eng N* 80:46-7 Ja 3 '18
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Fire resistance**Forms**

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- Building stair forms. J. A. Muller; C. C. Alley. *diags Concrete* 13:129-30 O '18
- Charts show size and span of sheeting at a glance. S. M. Cotten. *Eng N* 81:376 Ag 22 '18
- Concrete dwellings in France. H. J. Harms, Jr. *il Concrete* 12:16-17, 41-6 Ja-F '18
- Concrete fireplace forms. *diag Concrete* 13: 118 O '18
- Construction of substantial form for concrete curb and gutter. E. Drah. *diag Bldg Age* 40:254 My '18
- Detailed cost figures on forms and concrete for floors. F. R. Walker. *il Concrete* 12:199-203 Je '18
- Edison house idea outdone; C. H. Ingersoll produces 4-room dwellings all in one piece. *il diags plans Concrete* 13:42-6 Ag '18
- Efficiency methods in form work. A. B. McDaniel. *diags plan Concrete* 13:10-14, 61-4 Jl-Ag '18
- Efficient floor form system. H. L. Conrad. *diags plan Concrete* 12:223 Je '18
- Flat slab form detail. *diag Concrete* 12:214 Je '18
- Form for a concrete stairway. E. V. Laughlin. *diags Bldg Age* 40:401 Ag '18
- Form work for a small concrete through girder bridge. *diag Concrete* 12:146 Ap '18
- Forms for a through girder bridge. J. H. Mayer and J. F. Bliss. *diags Concrete* 13: 98 S '18
- Forms for concrete building construction. A. Graham. *Eng & Contr* 50:136 Jl 31 '18
- Framing plans simplify fieldwork on Cincinnati high school. J. T. Sullivan. *diags plans Eng N* 81:355-7 Ag 22 '18
- Handy step form detail. S. Healy. *diag Concrete* 12:154 My '18
- Model of complicated form makes considerable saving in cost. T. M. Lauridsen. *il Eng N* 80:731-2 Ap 11 '18; Same abr. *Concrete* 13:94 S '18; Same abr. *Eng & Contr* 50:380 O 23 '18
- New device holds form panels. *il Concrete* 13:106 S '18
- New type of traveling Blawform has no tie rods. *il Eng & Contr* 49:625-6 Je 19 '18; *Iron Age* 101:1597 Je 20 '18
- One hundred concrete dwellings built as one contract job. *il plans Eng N* 79:442-5 S 6 '17; Same. *Coal Age* 12:662-5 O 20 '17; Same cond. *Eng & Contr* 48:333-4 O 24 '17; Abstract. *Bldg Age* 40:19-21 Ja '18
- One-man collapsible culvert form of wide utility. *il Elec Ry J* 50:372 N 10 '17; *Eng N* 79:905 N 8 '17; *Munic J* 43:573-4 D 6 '17; *Eng & Contr* 49:99-100 Ja 30 '18
- Removing bolthole forms. L. V. Lauther. *diag Coal Age* 13:954 My 25 '18

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- Sewer invert forms hung from tunnel sets by T-square rig. R. W. Stewart. *diags Eng N 81:332-3 Ag 15 '18*
 Sliding forms for small buildings. J. N. Snyder. *diag Concrete 12:222 Je '18*
 Some factors in economical form work. G. W. Maker. *Concrete 11:189-90 D '17*
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- Training Sammies to make good concrete. *il Concrete 13:111-12 O '18*

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- Apparatus for mixing soap and alum waterproofing with concrete. H. V. Knouse. *diag chart Eng & Min J 103:388 Mr 3 '17*
 Cement gun in mining work. G. S. Rice. *il diags plan Coal Age 13:495-9, 540-3 Mr 18-23 '18; Same. Eng & Min J 105:584-7, 623-6 Mr 30-Apr 6 '18; Excerpts. Eng & Contr 49:488-9 My 15 '18*
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- Protecting concrete in cold weather. *Am Arch 113:170 F 6 '18*
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Concrete dams. *See Dams, Concrete*

Concrete failures. *See Concrete construction—Failures*

Concrete fence posts. *See Fence posts, Concrete*

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- Auto engines in home-made dinkeys saved money on a rush job. *il Eng N 79:1120 D 13 '17*
 Concrete machinery on the William Penn highway. *il Munic J 45:266-7 O 5 '18*
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 Direct charging of concrete mixers. *Munic J 45:392 N 16 '18; Same. Eng & Contr 50:452 N 6 '18*
 Motor trucks deliver mixed concrete three-fourths of a mile. *il plan Eng N 81:1000-1 N 28 '18*
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 146 unit-built concrete dwellings at Youngstown. H. Whipple. *il plans Concrete 12:5-9 Ja '18; Same. Coal Age 13:862-5 My 11 '18*
 Precast and field-cast concrete houses built by Lehigh coal and navigation co. at Lansford, Pa. J. B. Warriner. *il diags plans Coal Age 13:228-30 F 2 '18*
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Two new designs of houses of concrete throughout; Alcho and Schaeffer systems. *il* diags plans Eng N 80:947-8 My 16 '18
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 New pneumatic process of mixing and placing concrete. *il* diag Munic Eng 54:39-41 Ja '18
 Notes on shaft relining with concrete. G. G. Stonemark. Eng & Min J 106:8-10 Ji 6 '18
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 Special car plant with pneumatic mixer outfit for lining railroad tunnel. H. B. Kirkland. diags plans Eng & Contr 49:482-4 My 15 '18
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Boss high drum non-tip paver. *il* Munic J 44: 519 Je 22 '18
 Carburetor on concrete mixer. *il* Munic J 44: 157 F 16 '18
 Concrete mixer suited for manhole and conduit work. Elec R 72:1055-6 Je 22 '18
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 Ideal Cinnatus mixers. *il* Munic J 43:572-3 D 6 '17
 Knife-edge grit shield on top of hopper gate prevents trouble. J. H. Sawkins. diags plan Eng N 80:281 F 7 '18
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- Traveling concrete tower flanked by two derricks builds spillway. L. G. Arnold. *il* diags plan. Eng N 80:187 Ja 24 '18
- Traveling towers place 92,000 yards of concrete. *il* diags Eng N 80:73-6 Ja 10 '18
- See also Concrete lining; Concrete plants
- Concrete plants**
- Arch bridge is concreted from cars on elevated track. *il* diags Eng N 80:771-3 Ap 18 '18
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- Cement bags tobogganed down roller chutes. Eng N 81:145-6 J1 18 '18
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- Concrete-arch railway bridge costs less than steel. *il* diags Eng N 80:342-5 F 21 '18
- Concrete plant on Boston dry dock almost automatic. E. M. Blake. *il* *diag* Eng N 80:200-5 Ja 31 '18
- Concreting plants standardized for five Miami valley dams. *il* *diag* map Eng N 81:680-2 O 10 '18
- Concreting train in which cement and aggregate are carried in small ore cars. W. L. Whitlock. *il* *diag* Eng & Contr 49:382 Ap 17 '18
- Construction plant and methods employed in building concrete roads in Wayne county, Mich. *il* Munic Eng 54:134-7 Ap '18
- Construction speeded up by doing three jobs at one time; increasing height of three dams on Huntington lake. *il* plan Eng N 79:1044-7 D 6 '17
- Co-ordination saves six weeks' construction time on big building. *il* diags Eng N 81:300-4 Ag 15 '18
- Direct method of handling concrete aggregates with trucks. Eng & Contr 50:234 S 4 '18
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- Floating concrete plant builds highway on crown of river levee. *il* Eng N 81:146-7 J1 18 '18
- Floating mixer plant for construction of concrete wall at Oregon City locks, Oregon. E. B. Thomson. *il* Eng & Contr 49:290-1 Mr 20 '18
- Good handling equipment speeds ore dock construction. *il* Eng N 80:1214-16 Je 27 '18
- Long trestle controls concreting on big office. *il* plans Eng N 81:21-3 J1 4 '18
- Mechanical loading at concreting plant eliminates laborers. *diags* Eng N 79:1112-13 D 13 '17
- Mixer train. *il* Concrete 12:225 Je '18
- New bridge concreted from track of parallel old bridge. *diag* Eng N 80:970 My 16 '18
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- Sinking 50' concrete rings for pump pit. W. W. Hay. *il* Concrete 13:25-6 J1 '18
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- Clay and concrete products industries on reduced fuel schedule. H. A. Garfield. Concrete 12:181-2 My '18
- Glue molds and waste molds of plaster. Concrete 12:179 My '18
- Operation of a silo stove factory. *il* Concrete 12:165-6 My '18
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- Cost-plus contracts.** See Contracts, Letting of
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For later material see United States—War industries board

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Better countershafts for machine tools. O. E. Britten. Am Mach 49:170 Jl 25 '18

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 New capacities attained by G. E. electric cranes. *il* Elec R 72:440 Mr 9 '18; Iron Age 101:691 Mr 14 '18; Int Marine Eng 23:236-7 Ap '18
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Chart of properties of mine gases. G. A. Burrell. '18 U.S. Bur. mines, Washington, D.C.

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2d annual convention, Buffalo, N. Y., June 4-5. Coal Age 13:1110 Je 15 '18
- National commercial gas association**
Plans for amalgamation of the American gas institute and the National commercial gas association rapidly approaching completion. Am Gas Eng J 108:235-6, 365-9 Mr 9, Ap 20 '18; Gas Age 41:423-4 My 1 '18
- National committee of the confederated supply associations**
Meeting, Cleveland, O., May 15. Metal Work 89:658-9 My 24 '18
- National committee on gas and electric service**
Report of recent activities. Elec R 71:1061-2; 72:558-9 D 22 '17, Mr 30 '18; Elec W 71:428, 688, 739 F 23, Mr 30-Apr 6 '18
- Review of the committee's achievements.** Elec R 72:990-1 Je 15 '18
- National conference for good city government**
26th conference, New York, June 5-7. Munic J 44:499+ Je 15 '18
- National conference of tractor manufacturers**
Manufacturers of tractors organize. Automotive Ind 38:612 Mr 21 '18
- National conference on war economy**
Conference considers ways and means for securing greater economy and efficiency in public expenditures. Eng N 80:1151+ Je 13 '18
- National council for industrial defense**
1st meeting of the newly appointed Advisory committee. Am Ind 18:13-14 Mr '18
- National council of cotton manufacturers**
Members; portraits. Textile World 53:5136 My 4 '18
- National defense, Council of.** See Council of national defense
- National district heating association**
Cooperation between the National district heating association and the American society of heating and ventilating engineers. D. L. Gaskill. Am Soc Heat & V E 23:585-90; Discussion. 591-4 '17
- Meeting of executive committee takes place of annual convention.** Heat & Ven 15:61-2 S '18
- National editorial association**
Annual convention, Little Rock and Hot Springs, Arkansas, June 3-8. Inland Ptr 61:509-12 J1 '18
- National electric light association**
Annual convention; Pacific Coast section meets with the Pacific division of the Electrical supply jobbers' association and the California association of electrical contractors and dealers. il Elec W 71:1036-40 My 18 '18
- Meeting of the executive committee.** New York city, Sept. 13. Elec R 73:502 S 28 '18
- 34th annual meeting and 41st convention, Atlantic City, N.J., June 13-14.** Elec R 72:992-8 Je 15 '18; Elec Ry J 51:1180-3 Je 22 '18; Elec W 71:1248-53 Je 15 '18; Power 47:926-8 Je 25 '18; Munic J 45:42+ J1 13 '18
- War convention of New England section, Springfield, Mass., Sept. 27-28.** Elec W 72:656-9 O 5 '18; Elec R 73:540 O 5 '18
- National electrical code**
Changes in electrical committee in charge of code. Elec R 73:215 Ag 10 '18
- Electrical code covering both fire and accident prevention.** Elec R 73:629-30 O 19 '18
- Questions on the National electrical code, with replies by members of the executive committee of the National association of electrical inspectors.** Elec R 72:251-2, 531-2 F 9, Mr 23 '18
- Structural service department.** Am Inst Arch J 6:315 Je '18
- Suspension of the rule calling for marking of wires to facilitate polarity identification.** Elec W 72:268 Ag 10 '18; Same. Elec R 73:222 Ag 10 '18
- National electrical contractors' trading association**
Electrical contractors' association of England forms separate corporation to guarantee work of its members. Elec R 72:207 F 2 '18
- National electrical proving house, Great Britain**
Scheme for an electrical proving house. Inst E E J 56:26-7 Je '18

National electrical safety code

Electrical code covering both fire and accident prevention. Elec R 73:629-30 O 19 '18
 Rules for the installation and maintenance of electrical utilization equipment. Elec R 72:467-71, 527-8, 566-9, 607-8, 639-41, 689-91 Mr 16-Ap 20 '18

Safe installation of electrical utilization equipment.

Elec R 72:434-5 Mr 9 '18
 Structural service department. Am Inst Arch J 6:315-16 Je '18
 Year's progress in electrical safety work. M. G. Lloyd. Elec R 72:33-5 Ja 5 '18

National fire protection association

Personnel of Underwriters' electrical committee. Elec W 72:218 Ag 3 '18
 22d annual convention, Chicago, May 7-9. Am Lumberman 2243:49 My 11 '18; Munic J 44:460+ Je 1 '18

National foreign trade council

Delegates from iron, steel, machinery and allied trades at 1918 convention. Iron Age 101:1118-19 Ap 25 '18
 5th annual convention, Cincinnati, April 18-20. Am Lumberman 2240:37; 2241:46-7 Ap 20-27 '18; Automotive Ind 38:805-6 Ap 25 '18; Iron Age 101:1068-72+ Ap 25 '18; Iron Tr R 62:1059-62 Ap 25 '18; Ry Age 64:1061-3 Ap 26 '18

National forests. See Forest reserves**National founders' association**

22d annual convention, New York, Nov. 13-14. Iron Age 102:1280-1 N 21 '18; Iron Tr R 63:1189-91 N 21 '18

National guard (United States). See United States—Militia**National hardware association**

7th annual meeting, Pittsburgh, May 24-25. Iron Age 101:1418-19 My 30 '18; Metal Work 89:717-20 My 31 '18

National hardwood lumber association

21st annual convention, Chicago, June 20-21. Am Lumberman 2249:38-41+; 2250:47-53 Je 22-29 '18

National industrial traffic league

Annual convention, Cincinnati, Nov. 20-21. Ry Age 65:963-6 N 29 '18
 Meeting, Buffalo, N.Y., Aug. 29-30. Ry Age 65:453-5 S 6 '18
 Spring meeting, Chicago, March 21-22. Ry Age 64:792-3 Mr 29 '18

National labor board. See United States—National war labor board**National lime manufacturers association**

16th annual meeting, Cleveland, O., June 19-20. Concrete 13:sup 6 Jl '18

National lumber manufacturers' association

16th annual meeting, Chicago, May 20-22. Am Lumberman 2245:44-54 My 25 '18

National machine tool builders' association

Semiannual convention, Atlantic City, N. J., May 16-17. Iron Age 101:1330-4+ My 23 '18; Iron Tr R 62:1331-3 My 23 '18; Am Mach 48:959-67 Je 6 '18

National metal trades association

20th annual convention, New York, April 24-25. Iron Age 101:1136-41+ My 2 '18; Iron Tr R 62:1125-7 My 2 '18

National non-partisan league

Farmers' non-partisan league. F. G. R. Gordon. Am Ind 18:14-15 F '18
 Menace of the Non-partisan league. W. H. Barr. Iron Age 101:1141+ My 2 '18

National parks

See also Forest reserves

National physical laboratory, Great Britain

National industrial research laboratory. R. Glazebrook. Engineer 125:180-1 Mr 1 '18; Same. Eng & Contr 50:423-5 O 30 '18

Scheme for an electrical proving house. Inst E E J 56:26-7 Je '18

National pipe and supplies association

9th annual convention, Cleveland, O., May 13-14. Dom Eng 83:255-7 My 18 '18; Iron Age 101:1351 My 23 '18; Metal Work 89:680-3 My 24 '18

National railway appliances association

Exhibition in Chicago. Iron Tr R 62:734-5 Mr 21 '18

10th annual meeting, Chicago, March 19. Ry R 62:413-4 Mr 23 '18

National research council

Council made permanent. Eng N 80:1017 My 23 '18

National engineering societies and the National research council. G. E. Hale. Am Inst E E Pro 37:1223-36 O '18; Same. Am Soc M E J 40:825-9 O '18; Excerpts. Am Inst Min E Bul 142:sup 38-42 O '18

Organization of research work on a national scale. Eng & Min J 105:1136-7 Je 22 '18; Same. Chem & Met Eng 19:335 S 15 '18

Organizing America's research work on a national scale. C. W. Baker. Eng N 80:1079-80 Je 6 '18

Reconstruction problems to be studied. Eng N 81:511 S 12 '18

To be made permanent body; executive order of President Wilson. Am Inst E E Pro 37:sup 189 Je '18; Am Inst Min E Bul 139:sup 6 Jl '18; Am Mach 48:1116 Je 27 '18

War activities of our technical societies. C. W. Rice. Sci Am 118:586+ Je 29 '18

War activities of the National research council. G. E. Hale. Am Inst E E Pro 37:909-34 Jl '18; Same cond. Am Inst Min E Bul 140:sup 39-45 Ag '18

Work of the National research council. H. M. Howe. Iron Age 102:1023-5 O 24 '18; Same abr. Am Inst Min E Bul 144:1715-19 D '18

National retail lumber dealers' association

2d annual meeting, Chicago, Sept. 18-19. Il Am Lumberman 2262:46c-48+ S 21 '18

National safety council

History. Coal Age 14:484-5 S 12 '18
 7th annual congress, St Louis, Sept. 16-20. Am Lumberman 2262:52-3+ S 21 '18; Coal Age 14:502-3 S 12 '18; Iron Age 102:748-9 S 26 '18; Iron Tr R 63:732-4 S 26 '18; Ry Age 65:589-92 S 27 '18; Ry R 63:423-6, 463-5 S 21-28 '18

Work of the organization. Eng & Min J 106:471-2 S 14 '18

National security league

Congress on national service held by National security league. G. L. Alexander. Gen Elec R 21:281-3 My '18

National service, Congress on. See Congress on national service**National sheep and wool bureau of America**

Annual meeting, Chicago, June 17. Textile World 53:6211+ Je 22 '18

National supply and machinery dealers' association

Triple convention of supply and machinery trades of the United States, Cleveland, O., May 15. Iron Age 101:1346-51 My 23 '18; Am Mach 48:1095-9 Je 27 '18

National war labor board. See United States—National war labor board**National war savings committee**

Procedure followed by divisional chairmen. Power 47:347 Mr 5 '18

National warm air heating and ventilating association

Meeting, Milwaukee, June 12. Metal Work 89:834-7 Je 21 '18

National wholesale dry goods association

Annual convention, New York, Jan. 16-17. Textile World 53:3362+ Ja 19 '18

Jobbers confer on price fixing; hear government's side and present their own problems. Textile World 54:293 Jl 20 '18

National wholesale lumber dealers' association

Committees for the current fiscal year. Am Lumberman 2243:47 My 11 '18

26th annual convention, New York, March 27-28. Am Lumberman 2237:43-5+ Mr 30 '18

Natural gas. See Gas, Natural**Natural gas association of America**

13th annual convention, Pittsburgh, Pa., May 22-23. Am Gas Eng J 108:501-2 My 25 '18; Gas Age 41:495-500 Je 1 '18

Natural history museums

Popularizing anthropology; what museums are doing to make science attractive. E. H. Brush. *Il Sci Am S* 54:408-11 D 23 '17

Natural monuments

Temple of the Gods in Utah. L. Jeffers. *Il Sci Am* 119:267 O 5 '18

Natural steam. See Steam, Natural**Naturalization**

Americanization of our industrial aliens. *Am Arch* 113:239 F 27 '18

Naval architecture

Cycle in naval architecture. *Engineer* 124:431-2 N 16 '17; Same. *Sci Am S* 85:6 Ja 5 '18

Engineering education as applied to naval architecture and marine engineering. H. A. Everett. *Int Marine Eng* 23:339-42 Je '18

Experiments on simplified ship forms; abstract. H. C. Sadler and T. Yamamoto. *Int Marine Eng* 23:710-11 D '18

Investigation of shearing force and bending moment on ship structures. A. M. Robb. *diags Int Marine Eng* 23:592-3, 637-42 O-N '18

Marine use of concrete. *Il Sci Am* 118:81+ Ja 26 '18

Power, speed and dead-weight carrying capacity of screw steamers. H. P. Frear. *Sibley J* 32:168-70 Ag '18

Problem of the unsinkable ship. *Il diags plans Sci Am* 118:206, 215 Mr 9 '18

Ship within a ship. *Il diag Sci Am* 118:161 F 23 '18

Straight lined and fabricated ships. J. A. McAleer. *Il diags Int Marine Eng* 23:234-6 Ap '18

See also Freight ships; House boats; Motor ships; Propellers; Ship resistance; Shipbuilding; Ships; Ships, Concrete; Ships, Iron and steel; Steamboats; Submarine boats; Tank ships; Torpedo boat destroyers; Towboats; Warships

Designs and plans

Concrete ship of 3,500 tons deadweight designed by Emergency fleet corporation. *diags plans Int Marine Eng* 23:446-9 Ag '18

Design and construction of self-propelled reinforced concrete sea-going cargo steamers now building in Great Britain. T. G. O. Thurston. *diags plans Int Marine Eng* 23:455-64 Ag '18

Development of longitudinal. *diags Int Marine Eng* 23:656-7 N '18

Five thousand-ton deadweight fabricated steel cargo steamer for emergency fleet. *diags plans 2 pls Int Marine Eng* 23:194-8 Ap '18

Laying down a ship. *Il diag plans Sci Am S* 86:164 S 14 '18

Most suitable sizes and speeds for general cargo steamers. J. Anderson. *diags Int Marine Eng* 23:505-11 S '18

Motorships and their propelling machinery. J. M. Watts. *Il diags plans Int Marine Eng* 23:201-6 Ap '18

New Pacific Coast steam schooners. *Il diags plans Int Marine Eng* 23:280-4 My '18

Oil tanker of 10,000 tons deadweight adopted as standard by Shipping board. *Il diags plans Int Marine Eng* 23:107-13 Mr '18

Proportions of ideal cargo vessel. *Int Marine Eng* 23:544-5 S '18

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Shallow draft motorships for use on the Volga river designed by American naval architect for Russian owners. *diags plans (supp) Int Marine Eng* 23:9-11 Ja '18

Shipyard of Columbia engineering works. *Il diags plans Int Marine Eng* 23:294-300 My '18

Shooters Island shipyard and its standard cargo ships. *Il diag plans Int Marine Eng* 23:191-3 Ap '18

Standard cargo ships. G. Carter. *diags plan Int Marine Eng* 23:407-11+ JI '18; Same cond. *Engineer* 125:257-9 Mr 22 '18

Stresses in ships. S. V. James. *diags plans W Soc E J* 23:356-76 My '18

System for the design of ships with straight-lined sections. C. W. Bion. *diags Int Marine Eng* 23:335-8 Je '18

Unsinkable freight ship of French design. *diags plan Int Marine Eng* 23:576-8 O '18

Naval art and science. See European war—Naval operations; Gunner; Mines, Submarine; Submarine warfare; United States—Navy; Warships

Naval artillery. See Naval guns

Naval consulting board

Secretary Daniels praises Naval consulting board. *Elec W* 71:61 Ja 5 '18; Same. *J Ind & Eng Chem* 10:175 Mr '18

Naval engineering. See Marine engineering

Naval guns

British and German naval ordnance. *Engineer* 125:90-1, 111, 140 F 1-15 '18

Guns of the Queen Elizabeth; the 15-inch piece that bombarded Gallipoli. *Il Sci Am* 118:344-5 Ap 13 '18

Our new 16-inch naval gun. *Sci Am* 118:66 Ja 19 '18

Year's developments in naval ordnance. *Iron Age* 190:1486-7 D 20 '17

Navigation

Wake-stream and suction. C. H. Holst. *diags Sci Am S* 86:172-3 S 14 '18

See also Beacons; Buoys; Convoy; Lifeboats; Lighthouses; Motor boats; Ship railroads; Ship resistance; Shipping; Steamboats

Navy steam engineering school. See United States navy steam engineering school

Navy yards

Simplify office work of handling emergency building program at navy yard. *Eng N* 80:959-60 My 16 '18

Neale, James Brown, 1872—Sketch. *por Coal Age* 14:897 N 14 '18

Nebraska

See also Irrigation—Nebraska

Industries and resources

Nebraska potash industry. E. E. Thum. *Il map Met & Chem Eng* 17:693-8 D 15 '17

Origin of the Nebraska potash lakes. W. A. Norris. *Met & Chem Eng* 18:281 Mr 15 '18

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Are spiral nebulae external galaxies? *Sci Am* 118:376 Ap 27 '18

Evidence of matter in space obstructing the passage of light. W. W. Campbell. *Sci Am S* 85:57 Ja 26 '18

Needles, Knitting. See Knitting needles

Negotiable instruments

When checks and notes are lost or stolen.

R. H. Butz. *Dom Eng* 85:229+ N 9 '18

See also Acceptances; Bills and notes; Promissory notes

Negroes**Employment**

Making up the labor shortage. D. N. Crowthait, Jr. *Ind Management* 55:412-13 My '18

Negroes a source of industrial labor. D. T. Farnham. *Il charts Ind Management* 56:123-9 Ag '18

Neighborhood houses. See Social settlements

Neon

Neon lamps. *Sci Am S* 86:85 Ag 10 '18

Nephelometry (photometric analysis)

Technical applications of nephelometry. P. A. Kober. *Il diags J Ind & Eng Chem* 10:556-63 JI '18

Nervous system**Diseases**

Nerves of a soldier. A. Salisbury. *Il Sci Am* 118:14+ Ja 5 '18

Pathology of war neuroses. J. S. Bury. *Sci Am S* 86:226-7 O 12 '18

Nervous system—Diseases—Continued

Rapid cure of hysterical symptoms in soldiers. A. F. Hurst and J. L. M. Symms. *Sci Am S* 86:304 N 9 '18

War psycho-neurosis; the psychology of soldiers' dreams. F. W. Mott. *Sci Am S* 85:162-3, 183 Mr 16-23 '18

See also Hysteria

Nervous system (animals)

Chemical differentiation of the central nervous system in invertebrates. A. R. Moore. *Sci Am S* 84:389 D 22 '17

Netherlands

As it is in Holland; war time conditions. Y. Brouwers. *Power* 47:738 My 21 '18

Navy

New Dutch cruisers. *Engineer* 125:213-14 Mr 8 '18

Nettles

German textile use of nettles. *Am Soc M E J* 40:420 My '18

Use of nettle fiber in Germany. J. A. Hunter. *Textile World* 53:3703 F 9 '18

Neurasthenia. *See* Nervous system—Diseases

Neurosis. *See* Nervous system—Diseases

Nevada. *See* Copper mines and mining—Nevada

Nevada consolidated copper company

Annual report, 1917. *Eng & Min J* 105:1092 Je 15 '18

Total plant costs as of Dec. 31, 1917. L. H. Goodwin. *Eng & Min J* 106:905-6 N 23 '18

New Bedford gas & Edison light company

Annual meeting. *Am Gas Eng J* 109:215 Ag 31 '18

New England association of gas engineers

48th annual meeting, Boston, Feb. 20-21. *Am Gas Eng J* 108:187-8 F 23 '18; *Gas Age* 41:203-4 Mr 1 '18

New England coal dealers' association

Annual meeting, Springfield, Mass., March 20-21. *Coal Age* 13:586-7 Mr 30 '18

New England electric freight association

Freight agents of New England electric railway properties have organized. *Elec Ry J* 51:175 Ja 26 '18

New England power company

Increasing facilities to meet war-time demands. *Elec W* 71:1384-5 Je 29 '18

New England water-works association

Meeting, Boston, Sept. 11-12. *Eng N* 81:556 S 19 '18; *Munic J* 45:260 S 23 '18; *Power* 48:470-1 S 24 '18

New Haven, Connecticut**Sewerage**

Miles acid process for recovery of sewage grease with special reference to sewage. C. E. A. Winslow and F. W. Mohlman. *Munic Eng* 55:173-6 N '18

Streets

National pavement in New Haven. *il Munic J* 45:143-5 Ag 24 '18

National pavement in New Haven. *il Good Roads n* 5 16:55-7 Ag 17 '18

New Jersey. *See* Roads—New Jersey**New Jersey chemical society**

Meeting, Newark, Oct. 28. *Chem & Met Eng* 19:728 N 15 '18

New Mexico

See also Roads—New Mexico

Antiquities

Prehistoric Pueblo Indian ruin near Aztec. *il Sci Am S* 86:4-5 Jl 6 '18

New Orleans, Louisiana

Proposed New Orleans industrial canal and lock. H. Egleston. *map Munic Eng* 54:168-9 Ap '18

Architecture

Creole architecture of old New Orleans. N. C. Curtis. *il map Arch Rec* 43:435-46 My '18

Harbor

New Orleans builds inner harbor and navigation canal. *il diags map Eng N* 81:304-7 Ag 15 '18

Transportation efficiency for the war; what New Orleans has accomplished. E. Amberg. *il Int Marine Eng* 23:72-4 F '18

Public buildings

Early building methods in New Orleans; custom house. K. H. Pullen. *il Bldg Age* 39:425-6 Ag '17; *Same. Arch & Bldg* 49:103 N '17

Sewerage

Electrically operated pumping system. *il Elec R* 71:1047-9 D 22 '17

Water supply

Electrically operated pumping system. *il Elec R* 71:1047-9 D 22 '17

Service connections in New Orleans. *Munic J* 45:210 S 14 '18

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Building situation in New York. *Am Arch* 114:320-1 S 11 '18

Food wastes—some causes and remedies. L. P. Brown. *il diags J Fr Inst* 185:585-610 My '18

Indictment which must be examined; letter to the directors of the title and mortgage companies of New York. *Am Inst Arch J* 6:79-81 F '18

West Side report ready. *Elec Ry J* 51:287 F 9 '18

Architecture

Suggestion for a war memorial on Riverside Drive. D. Barber. *il plan Am Arch* 114:320a-320b, pl 81 S 11 '18

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Arched steel cantilevers used in Park Avenue viaduct. H. W. Levy. *il diags Eng N* 81:81-3 Jl 11 '18

Bridge versus ice-blockade. *Sci Am* 118:226 Mr 16 '18

Hell Gate arch, the first bridge on which strain gages were used to determine dead load stresses. *Eng & Contr* 49:208 F 27 '18

Tunnels vs. bridges. *Sci Am S* 85:317 My 18 '18

Central park

Repaving Central Park transverse roads. D. B. Goodsell. *il map Good Roads n* 5 15:151-4 Mr 16 '18

Fire department

New York fire alarm telegraph. *il Munic J* 44:53-4 Ja 19 '18

Fire service

Leaks from high pressure fire service mains. H. B. Machen. *Am Water Works Assn J* 5:44-8 Mr '18; *Same cond. Eng & Contr* 50:256 S 11 '18

Galleries and museums

See Museum of the American Indian; New York (city)—Metropolitan museum

Harbor

Improvement program for port of New York. M. Hulbert. *Ry R* 63:718-19 N 16 '18

Improving the port of New York. *Sci Am* 119:401 N 16 '18

New ocean freight terminal started on Staten Island. *diags Eng N* 80:120-3 Ja 17 '18; *Discussion. F. E. Pratt. 80:426-7 F 28 '18*

Port of New York capable of expansion. W. R. Willcox. *Int Marine Eng* 23:501 S '18

Progress of New York harbor investigation. *Ry R* 63:277-9 Ag 24 '18; *Same cond. Eng N* 81:397-9 Ag 29 '18

Protection for the port of New York. *Sci Am* 118:100 F 2 '18

Health department

Proposed reorganization of health department. *Sci Am* 118:376 Ap 27 '18

Metropolitan museum

Coöperation of a museum with manufacturers. *Sci Am* 119:410 N 23 '18

New York (city)—Continued**Public works**

Coördination of engineering work in New York city. L: L. Tribus. Eng N 80:134 Ja 17 '18

Railroads

Conveyor scheme for handling New York city's package freight. diag plan Ry Age 65:455-6 S 6 '18

New approach to the Grand Central depot; hauling 75-ton girders through the streets. il Sci Am 119:378+ N 9 '18; Eng N 81:824-5 O 31 '18

New York city's transportation requirements. Ry R 62:402-3 Mr 16 '18

Rapid transit

Cost of erecting structural steel for Manhattan Elevated railway improvements. Eng & Contr 49:90-1 Ja 23 '18

Discussion by mayor, railroad executive and commissioners follows 6-cent fare appeal. Elec Ry J 51:628 Mr 30 '18

Features of New York city's new rapid transit system. R. Ridgway. il diags Boston Soc C E J 5:193-225 My '18

History of the Manhattan railway company's system. F. W. Gardiner and S. Johansson. J Fr Inst 185:437-9 Mr '18

New York inquiry begun; city commission asks surface railways for data to permit inquiry. Elec Ry J 52:257 Ag 10 '18

New York lines need money. T. H. Whitney. Elec Ry J 52:669 O 12 '18

Rebuilding an elevated railway under regular schedule traffic. F. W. Gardiner and S. Johansson. map Elec Ry J 51:320-2 F 16 '18

Yankee tram makes its appearance; new type bus in New York. il Elec Ry J 52:926 N 23 '18

See also New York (city)—Subways

Sanitary affairs

New York city has largest and best garbage-reduction works. H. V. Schiefer. il diags Eng N 80:555-61 Mr 21 '18

Sewerage

Methods of estimating and measuring sewage flow. W. S. McGrane. Munic J 44:261-2 Mr 30 '18; Same. Eng & Contr 49:600-1 Je 12 '18

Sewage disposal for a New York area—Brooklyn and Queens. map Munic J 43:578-80, 600-1 D 15-22 '17

Streets

Contracts for snow removal in New York. Munic J 43:637-8 D 29 '17

Municipal traffic problem. R. E. Enright. Good Roads n s 16:11-12 J1 13 '18

Novel automobile roadway proposed for New York city. Good Roads n s 15:142 Mr 9 '18

Ultimate costs of bituminous and water-bound macadam nearly equal in New York. D. P. Babcock. Eng N 81:87-90 J1 11 '18

Why not double-decked streets for New York city? C. S. Rindsfoos. Eng N 80:674-5 Ap 4 '18

Subways

Broadway subway opened. Elec Ry J 51:100 Ja 12 '18

Difficult subway work under land and water. il diag Sci Am 119:209 S 14 '18

Distribute subway track material by motor truck in New York. il Eng N 80:857-9 My 2 '18

H system troubles. maps Elec Ry J 52:300 Ag 17 '18

New York subway cave-in kills three. diag Eng N 80:972 My 16 '18

New York subway extension. il Ry R 63:587-8 O 19 '18

Open H system of New York city transit lines. Eng N 81:289+ Ag 8 '18

Opening a new link of New York's vast subway system. il Sci Am 119:71+ J1 27 '18

Times Square tangle becomes a reality. Eng N 81:255 Ag 8 '18

Tunnels

Tunnels vs. bridges. Sci Am S 85:317 My 18 '18

Water supply

Water supply of New York. diags map Engineer 126:109-11, 131-3 Ag 9-16 '18

See also Catskill aqueduct

New York (state). See Mines and mineral resources—New York; Roads—New York

New York Central railroad

New York Central relocates lines to cross barge canal at the Tonawandas. B. S. Voorhees. maps Eng N 81:893-6 N 14 '18

New York Central safety-first department. Ry Age 64:1575-8 Je 28 '18

Report for the year ended December 31, 1917. map Ry Age 64:1155-7, 1204-6 My 10 '18

Statistics, year 1917. Ry R 62:822-3 Je 8 '18

New York Connecting railroad

Electrification of New York Connecting railroad. il map Ry Age 64:1367-70 Je 7 '18; Same. Ry R 62:779-85 Je 1 '18

11,000-volt overhead on the New York Connecting railroad. il diags map Elec Ry J 51:1042-7 Je 1 '18

New York international exposition

Behind the scenes of an exposition; activities at the New York international exposition before opening the doors. A. C. Lescarboura. il Sci Am 118:524-5+ Je 8 '18

New York, New Haven and Hartford railroad Annual report, 1917. map Ry Age 64:1364-5 Je 7 '18

New York railways

Statement of capitalization. Elec Ry J 52:171-2 J1 27 '18

New York state barge canal

Barge canal promises rapid lumber movement. Am Lumberman 2233:49 Mr 2 '18

Canal as a carrier of coal. W. W. Wotherpoon. map Coal Age 13:402-6 Mr 2 '18; Discussion. 13:938-9, 1075-6, 1172; 14:835-6 My 18, Je 8, 22, O 31 '18

Canal taken by government. Eng N 80:836-7 Ap 25 '18

Canals ready to help handle freight traffic. Eng N 80:488-9 Mr 7 '18

Completing a great waterway from the lakes to the Atlantic. D. B. La Du. il map Sci Am 118:56-7+ Ja 12 '18

Concrete barges designed for New York state canal. diags plan Eng N 81:271-2 Ag 8 '18, Int Marine Eng 23:586-8 O '18

Effect of war conditions on New York state barge canal construction. F. M. Williams. Eng & Contr 49:381 Ap 17 '18

Erie barge canal finished after 13 years at a cost greatly in excess of the estimate. Eng & Contr 49:607 Je 19 '18

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- Address at A.I.E.E. midwinter convention, reb. 15, 1918. E. W. Rice, jr. Am Inst E E Pro 37:195-201 Mr '18; Same. Elec Ry J 51: 367-9 F 23 '18; Same. Elec R 72:335-7 F 23 '18; Same. Gen Elec R 21:171-5 Mr '18; Same cond. Elec W 71:323 F 9 '18; Same cond. Power 47:310-11 F 26 '18; Excerpts. Eng N 80:403-4 F 28 '18; Excerpts. Ry R 62:442-3 Mr 23 '18
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Sheet mills. See Rolling mills

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- Sheet piling channel in forebay eliminates slush ice. il diag Eng N 80:615-16 Mr 28 '18

Sheeting. See Sheet piling**Sheffield, University**

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Shellac

- Shellac as an adhesive. J. Parker. Am Mach 49:971 N 23 '18

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- Drawing and trimming shallow shells. W. C. Winkelman. il diags Am Mach 48:33-5 Ja 3 '18
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- Amalgamated shell-turning lathe. il Am Mach 19:859 N 7 '18; Mach 25:261-6 N '18
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- Cutting off fuse rings in hand screw machines. *il* James. *diags* Am Mach 47:1138-9 D 27 '17
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Sherman anti-trust lawShoe-machinery decision. *Sci Am* 118:563 Je 22 '18**Shingles**Asphalt shingles for fire resistance. *Metal Work* 89:346 Mr 8 '18Eliminating the modern shingled roof. *Am Arch* 113:720 My 29 '181st annual Red cedar shingle congress, Seattle, Wash., Jan. 16-17. *Am Lumberman* 2228:43-6 Ja 26 '18Metal shingles will help metal roofers. *Metal Work* 89:772 Je 14 '18Metal tiles and shingles. *il* *Metal Work* 89:39-41 Ja 4 '18Modern roofing materials. C. H. Stringer. *Am Arch* 114:361-4, 537-42 S 25, N 6 '18New red cedar shingle rules announced. *Am Lumberman* 2241:35 Ap 27 '18

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